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Engineers Available For War Service

RECENT APPEAL INDICATES NEED FOR ADMINISTRATORS

Are Combat Physical Requirements Essential For Commissions In Non-Combat Forces

Did The Abolition Of The Specialist Corps

Deprive The Government Of Available Personnel

Elsewhere in this issue appear statements of information regarding the Military Government Program of the Army and the Specialists Reserve Section of the Officers Reserve Corps. "Citizens with good basic education and broad governmental executive and administrative experience" or "with expert qualification in public works" are among those urged to apply for Commissions in the Officers Reserve Corps, Army of the U. S.

In view of an apparent contraction of War projects requiring the services of construction engineers within the continental limits of the United States, the government should experience little difficulty in securing an ample supply of qualified personnel for the Reserve Corps if the authorities will but recognize the fact that the type of person required must, with few exceptions, be found in ages forty to fifty and, to an even greater extent, among men between ages fifty and sixty. Accepting this to be true, it must likewise recognize the fact that it is hardly logical to expect the same physical standards in men of fifty as in those of twenty.

Experience of the ages has shown the wisdom and judgment of fifty years can no more be expected from a youth of twenty than the physical qualifications of the latter can be hoped for from the man a generation his elder. Which is the more vital must depend upon the task to which the individual is assigned. No one would substitute age for youth on the firing line where strength, agility and stamina are indispensable to success. Nor should one deprive the combat services of such personnel where the duties of the non-combat services, which call for training, experience and knowledge that youth cannot have, can be better performed by older persons willing, in fact anxious, to serve their country.

Apparently military, as well as administrative, sources in Washington once appreciated the need for, and value of, experience based upon educational backgrounds sufficient to produce administrators, professional experts and specialists of various kinds as part of the Army personnel in this war of machines and munitions. It was for this reason that the Army Specialist Corps was established over a year ago. The sudden demise of this Corps appears to have had its cause more in petty jealousy than justification; for the opportunity to function never was afforded.

The efficient conduct of every conceivable effort incident to the planning, constructing and maintaining of camps, fortifications, plants, transportation and the various other activities performed by officer personnel such as investigating, analyzing, testing and approving materiel and ammunition, none of which duties calls for more personal risk or greater physical qualifications than those exercised every day by construction, plant and operation superintendents and engineers of forty, fifty and even sixty, is ample justification for the utilization of a large storehouse of technical personnel which will shortly be idle in increasing numbers. Youth, physical qualifications and essential combat personnel should not attempt the role of mellowed experience far removed from the rigors of combat when experienced specialists are available. So far as danger from enemy action is concerned, there can be no question for with modern warfare every civilian becomes a soldier the moment the enemy invades. If government responsibility for the future health and welfare of men commissioned in the armed services be a hindrance, why not allow those who are not twenty years of age physically to waive all rights to compensation and care. After all it is quite probable that social security on an ever increasing scale will shortly provide for those whom age and want (that ill matched pair) overtake whether they saw military service or not.

Of those whose ability, training and knowledge are of value to the prosecution of war none is more essential, and none stands more willing, than the engineer above the draft age. Why not utilize his services? The Specialists Reserve suggests the need. A little more emphasis on the qualifications of training and experience and less on the insistence of combat physical standards for non-combat service personnel would be a long step toward a more complete utilization of man power.

NATURAL RESOURCES

MAN'S ENDOWMENTS BOTH SPIRITUAL AND MATERIAL

SHOULD BE THE CONCERN OF THE ENGINEER

FOR WHOM NEW RESPONSIBILITIES

LOOM UPON THE HORIZON OF CIVILIZATION

YOUTH THE HOPE OF TO-MORROW

by

Professor James J. Bowe

PRESIDENT JAMES J. BOWE
Dist. of Columbia Society of P. E.

In this article Professor Bowe, who has for some time been attached to the War Department, poses a question concerning the depletion of our natural resources and then proceeds to declare them inexhaustible if man will but develop his spiritual and mental faculties. To the Engineer falls the responsibility of safeguarding America against Want. Interest in affairs of Government is essential.

An all wise and indulgent Providence has furnished man with an abundance of that which is required to maintain and progress human existence on this planet. In fact there is reason to believe that this abundance is inexhaustible if man will but use and not misuse nature's bounty. Conservation, replacement, research and creative effort should, with moral guidance, transform and recreate the very substances already consumed.

But, one may well inquire, has man been provident and moral in his use of natural resources? For instance gas, coal and oil are provided by nature in large quantities. They are not being reproduced or found at a rate equal to their consumption. Is it possible that eventually they will be exhausted—perhaps sooner than we expect? The present conflict has caused a terrific drain to be made on all materials. As an example—iron, steel, copper, brass, zinc, tin, aluminum, nickel, tungsten, vanadium, platinum are just a few of the metals which have been called into active service for the duration. Unless they are still plentiful or at least replenished so that they may remain active agents in the post war period, a victory will mean little. The progress of recent civilization might well be measured with the advancement of metallurgy. Witness the present century with its almost fantastic advancement in metal processing; a processing that covers a multitude of conditions such as toughness, hardness, brittleness, durability, weight, expansion, contraction, flexibility, heat transmission, power transmission, tension, etc. In connection with such processing, it might be said that the field of design is the right arm of metallurgy. Here the engineer uses all the revelations of research and applies them to the purpose for which they are best adapted. Cost and availability are also important items to be considered and weighed in the matter of production. All of the above represent resources, which, perhaps, appear in nature in one form or another. The consumption caused by the present conflict will equal the quantity necessary for a century of production under normal conditions.

If nature has blessed us with material things, it has also blessed us with spiritual things. In the creation of Heaven and earth, God provided for man in all his emergencies. Man is the highest creature of earth "to the image of God made He him." It is possible for man to improve his way of life not only until he resembles God in image but also in the spirit.

The ability of man to develop consecutive thoughts, to think of the past, the present and the future, is his most valuable asset, and probably his greatest liability. The power of good and evil is reflected in the use to which the thinking faculties are put. In the short span of our American history, we have built a civilization which, while taking full advantage of each new development, has, in many individual cases, approached Godliness in objectiveness. In many other cases, the reverse has been true; all the powers of evil have been covered by a thin veneer of civilization. The fathers of our country endured the most severe rigors that nature could impose upon them. Yet little by little they out-thought it. From the mountains, from the oceans and from the prairies, from under the earth and under the sea, they have brought forth and utilized the elements with which nature has endowed this fertile land. Such comforts as have never been known to man in any nation on the earth have been made available, even to those in comparatively lowly circumstances. All of these advancements have come because of man's God-given ability to think. Yet today we hear successful men predict dire conditions for the future. Have we forgotten that the resources which we have tapped are only those on the surface? Have we forgotten that the greatest sources of all have not even been scratched? The heat of the sun, the greatest power plant known to man has never been utilized. The horse power of the sea has been dissipated since the beginning of time. The water of our rivers, the floods that visit us yearly are crying out to man, "Harness me and I will give you more and cheaper power than you

(*Continued on Page* 28)

ENGINEERS AND THE BUILDING INDUSTRY

EXCERPTS FROM CONCLUDING SESSION

ENGLISH ARCHITECTS, ENGINEERS AND BUILDERS FORUM GATHERED TO DISCUSS COMMON ROLES AND PROBLEMS

Courtesy of "The Engineer" of England

Prompted by an expression of interest incident to the publication in the 1942 November-December issue of the American Engineer of certain discussions held in England during the latter part of that year on

the subject of "Engineers and the Building Industry", the American Engineer offers some excerpts from the final discussions. And again it thanks the Engineering News-Record for its courteous collaboration.—Ed.

"CIVIL ENGINEERS AND THE BUILDING INDUSTRY"

The fifth and final discussion meeting arising out of the Conference convened by the Institution of Civil Engineers of the British Isles on August 25th, 1942—postponed from January 5th—took place at the Institution's building, Great George Street, London, on Thursday, February 4th. The subjects discussed were management and organization and the future of the building industry. The procedure, however, differed from that of the previous meetings, in that there were three selected speakers and there was no open discussion. Lord Reith, late Minister of Works and Planning, was the first speaker, and although the present Minister (Lord Portal) was present, he did not speak, and, indeed, owing to other engagements, he left at the conclusion of Lord Reith's remarks. Lord Reith was followed by Sir Ernest Simon, who is now working in conjunction with the Ministry of Works and planning, and the final address was by Sir Clement Hindley.

Lord Reith said that when he went to the Ministry of Works and Planning he looked round for a body representing all the interests concerned in the building and civil engineering industries—employers, professional men, operatives, manufacturers, merchants, and so on—a body with whom he could talk, and which could talk back to him with authority and responsibility, but no such body existed. He therefore, formed the Central Council, with Sir Ernest Simon as Deputy Chairman, and one of the things he told Sir Ernest was that if that Central Council did its job properly, then responsibility for post-war planning as regards the construction industry generally would pass more and more from the Ministry to the industry.

* * * *

Passing on to the question of internal ordering, Lord Reith said the industry must inspire public confidence and create increasing public interest in it, and that called for outstanding leadership. The industry must have men not only of integrity and real capacity, but men with vision and imagination beyond their immediate tasks, capable of developing beyond the vested interests of their own particular sections and their own professional interests. Look around, he said, and try to find such men. Some there were, for which everybody should be thankful, but it was still necessary to look around and see whether this great construction industry was, in fact, producing the leadership that was needed.

As to education, at least some attention was now being given to this, and it was high time. He himself had gone through a laborious five years' apprenticeship to engineering, with the requisite technical and theoretical work but he was taught not the first thing about management which would have enabled him to qualify for greater responsibility. He had been surprised at the attitude of some of the professional bodies towards this question of administration, and it had been a matter of surprise that Sir Clement Hindley had been elected President of the Institution. It was greatly to the credit of the Institution that they did elect Sir Clement Hindley, because he was typical of the man who, owing to qualities which others did not possess, graduated from the sphere of purely technical work into great administrative responsibility, but, at the same time was regarded in certain quarters as having lost caste! He himself, said Lord Reith, was an associate member of the Institution of Civil Engineers for many years, and was told that because he had passed from the actual exercise of the profession he could not qualify for full membership. That lasted for ten years, whilst men in subordinate positions to himself passed from associate membership to full membership. It took such a President as Sir Alexander Gibb to see that he was transferred to full membership. Why should such a man as a chief engineer of a railway, who, appointed general manager because of his special qualities, be disqualified from becoming a full member of the Institution? That used to be the position.

After remarking that more was needed as regards research in the construction industry, Lord Reith said some decision would have to be made as to who should be in charge of a big building during construction, because it was difficult to find out who was the "boss." It was easy to find out on a big civil engineering works, but in the case of a big building, where there was a main contractor and perhaps twenty or thirty sub-contractors, who was the "boss"? Was it the architect or the clerk of works or who? The present position was not satisfactory and there should

definitely be somebody in charge.

Then there was the care of the interests of the professional man. Why should he not have some body to watch over his interests? Why should he, having gone through the grind to qualify himself fully for responsible positions, be at the mercy of the market and be paid less, perhaps, than some of the men whose work he was supervising? He knew that professional institutions did not wish to turn themselves into trade unions, but there was a good deal to be said for it, and the trained engineer needed someone to look after his interests.

Lord Reith then expressed the opinion that no large works should be started without professional authorisation, i.e., there must be independent professional advice, and that labour should be called in to the deliberations of the employers more often than they had been in the past. Standardisation, he said, he would leave to the industry, as much more would be effected in that way than if it were in the hands of politicians or civil servants.

Coming to post-war conditions, he said we should be faced with three main issues. The first was the supply of materials; the second would be the licensing of works; and the last was standardisation in various forms. As to materials, there was bound to be some direction and control after the war—control of production of building materials, of distribution, and of the supply of plant. There would also have to be some system of licensing works, both public and private, with considerably more control as regards public works. On standardisation, he said the Ministry of Works was busy on standardisation in various forms, although it was unpopular with some people, and useful work was being done in this respect with regard to materials, plans, designs, equipment, methods of construction, schedules of prices, etc. Whether the industry liked it or not, there was bound to be a continuance of direction and control—perhaps 'direction' was better than 'control'—and the better the internal ordering, the less direction would be necessary.

He expressed the hope that the Ministry of Works would have control of all public works contracts, the various priorities being settled by Departmental Committees. There could not be a scramble for contracts. There need be less direction in regard to private work. He suggested there should be a Statutory Board to exercise whatever degree of direction might be needed in the materials part of the construction industry, plant and equipment, etc., and a second Statutory Board to give the necessary direction to the construction industry—a difficult matter—i.e., civil engineers, builders, etc., and there might have to be a register of firms. There might also have to be some measure of regionalisation in the placing of contracts. Both these Boards would work to Government directions regarding priority and conform to the conditions under which they were established.

Sir Ernest Simon said the Central Council, to which Lord Reith had referred, had upon it leading members of the contractors, employers, architects, quantity surveyors, engineers, and all concerned with the construction industry. The members of the Council were there to give their individual views and advice, and he congratulated Lord Reith on having founded a new type of organisation. Continuing, Sir Ernest said he had just returned from a visit of 100 days in the United States, where he had travelled right across the country and visited twenty of the largest towns and discussed problems of planning and building with many people, and had learned a great deal of what was contemplated in after-the-war planning out there. Everything was to be done on a tremendous scale, and in New York an expenditure on public works, i.e., excluding houses, of 700 million dollars was contemplated. Actually, 20 million dollars had been authorised now for the preparation of designs and plans.

Speaking of our own problems, Sir Ernest said we must have three plans, viz., a manpower plan, a building plan, and a source of materials plan. We must avoid the conditions that arose after the last war, when large contracts for buildings were placed, only to find there were no bricks and no skilled labour available. The result was that the price of a house worth $350 went up to $1000. The Government lost its nerve and cut down, and there was 40 per cent unemployed in the building industry in three years—a shocking example of how not to do things. It took fifteen years after the last war before we were in a position to build 300,000 houses a year, but it was now hoped to reach that position in three years after the present war. There must be guaranteed full employment for all the people drawn into the industry, and that would enable orders to be placed with confidence. This implied that there could not be private competition on the scale known in the past and the position would have to be regulated somewhat on the lines suggested by Lord Reith. The whole conception of any scheme should be to rebuild Britain in one generation, and that needed the fullest co-operation of engineers, architects, contractors, and all engaged in the construction industry.

Sir Clement Hindley said that from the first Conference it had been possible to see something of a picture of the problems before the industry. There was a very large programme to be covered in housing, due to accumulated arrears during the war years, and the reinstatement of property damaged by enemy action, to say nothing of the redistribution of the population necessitated by the faults of a century of slum building. There were also the arrears of every kind of engineering service concomitant to housing and building. This unprecedented programme would have to be faced with a shortage of some materials, and substitutes and new methods might have to be adopted. Unfortunately, there had been no representative of the building owner taking part in the discussions and he was not sure that that was a bad thing, because the whole foundation of these discussions had been the need for efficient and economical buildings.

* * * *

Another important question was organisation and Lord Reith had put his finger on the spot when he had asked who was the 'boss.' There were many things to be considered in building and civil engineering operation. In

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INTERNATIONAL ASPECT OF PATENTS

SCIENCE AND TECHNOLOGY TRANSCEND POLITICAL LINES

PREVAILING CONDITIONS CALL FOR NEW TREATIES TO BE ADMINISTERED BY WORLD COURTS

COMPOSED OF SCIENTISTS, TECHNOLOGISTS, ATTORNEYS AND SCHOLARS OF CHARACTER AND ACCOMPLISHMENT

by

L. Stewart Gatter

A NEW AND COMPREHENSIVE INTERNATIONAL PATENT CONVENTION, HAVING PROVISION FOR SANCTIONS, WILL GUARANTEE FREE ENTERPRISE AND INDIVIDUAL LIBERTY THROUGHOUT THE WORLD, STIMULATE INTERNATIONAL COMMERCE, AND PROMOTE A MORE DURABLE PEACE.—*Author*

THIS war has spotlighted the need for a strong policy with respect to the control exercised by foreign governments over American concerns through the patent system.[1] The International Treaty known as the "Patent Convention" is one of the oldest treaties in existence. There are upwards of forty-five sovereign signatory powers who were parties to it. The treaty provides that any citizen of any signatory power can,' within a specified period of time, file an application for a patent in the Patent Office of any other signatory nation, and obtain his patent in such nation.

The original convention of March 20, 1883 was known as "The Union for the Protection of Industrial Property".

Subsequent treaties in modification of the original convention were ratified from time to time. In June of 1935, the United States Senate consented to the President's ratification of the International Convention as revised at London in 1934.

L. STEWART GATTER
Attorney and Engineer
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Patent Law Specialist

It is suggested that the time is now opportune to propose a comprehensive new treaty for early acceptance by all nations, which equal provisions for adherence by victors, neutrals and vanquished alike. The time is likewise ripe to cast the mold of a workable realistic body of international law, with unlimited growth in perspective, on a framework which is already existent (albeit in need of some further vitalization).

Inventions Are Property

The sovereign powers have thus long recognized that science and technology are not limited by political boundaries. It has also been recognized that the individual citizen acquires a right of property not only in his native country, but also in any other country in which he files and obtains his patents. It is interesting to note in this connection that no inventor had or has any special right to his invention at common law.[2] Formerly, kings conferred monopolies upon their favorites, sometimes apart from any real right to the subject monopolized. Parliament, however, in the reign of James I, limited the royal prerogative to true inventions, and thus founded the patent laws.

Since the enactment of the Constitution of the United States, it has been well established by the courts in this country that inventions and patent rights arising therefrom are property.[3]

It has been said that the right of property which an inventor has in his invention is paramount and superior to all other property rights of every kind and nature, except perhaps the rights which authors have to their writings. The inventor must not be looked upon as the beneficiary of the people or of the nation; that which he confers is greater than that which he receives. Although it may be considered that the individual who creates value by manual labor contributes more to society than the merchant, the banker, or the receiver of unearned increment, his achievement does not qual in importance that of the inventor or the author. The work of an inventor is felt everywhere and lasts forever.[4] This individual property right is expanded into new and free enterprise whenever it is recognized.

Evasions of the Treaty

There has been evasion by some of the signatory powers of both the letter and spirit of the International Convention. A consequent impairment of individual property rights has resulted. Free enterprise has been thwarted, and free intercourse betwen nations in the way of trade and commerce has been impaired, with the resultant impairment of the potentiality for peace.

No proper action has ever been taken by the United States State Department, because there has not been sufficient public interest, and because no adequate machinery

for enforcement was available. Sanctions were lacking. As the reader will discover, the plan outlined will create the necessary public interest and provide the necessary sanctions.

Some nations signatory to the convention have placed embargoes on the export of capital which was due non-citizens for royalty payments. The fruit of his foreign patent property was thus lost to the inventor.

In Japan, exploitation of these properties has been difficult because of the concentration of economic power in the hands of a few persons, with a consequent limitation of opportunity for exploitation of the invention, unless by way of international cartels, of doubtful benefit to the peoples of any of the countries involved.[1]

The treaty provides that the subjects or citizens of each of the contracting countries shall enjoy the advantages as to patents which have been accorded to the citizens of any other country. Consequently, in any country where its citizens had no rights in such patent properties, it is doubtful if any non-citizen of such country would acquire any rights whatsoever. Furthermore, in the case where the title to property vested in the sovereign (Russia, for example), and the sovereign committed an act of infringement, it is doubtful if the sovereign could be sued without its consent. The general rule of law is that the sovereign cannot be sued without its prior consent.

It is obvious, therefore, that a new convention must be prepared and drawn, which will contain provisions adequate to preclude all evasions, and which will provide for uniform enabling legislation upon which a body of operative international law may be erected. This will require some further surrender of sovereignty than that already provided for in the present convention—for example, the consent to be sued. Free enterprise and individual liberty would thus be guaranteed, international commerce stimulated, scientific and engineering techniques readily exchanged while time would work in favor of strengthening the body of law thus created. This, in turn, would make for more lasting economic stability. Domestic corporations could, with more certainty, do business abroad and, in the end, this would tend to promote a more durable peace. However, this plan, like all others, must contemplate the establishment of suitable sanctions.

Sanctions By Judicial Decree and Levy Against Property

It may be that a covenant for a world order will ultimately be approved, but few plans for post-war organizations contain a realistic solution as to enforcement. Some seem to prefer the method of enforcement through an international army or force.[5] Difficulties with such plans have been pointed out by others. They usually pre-suppose the establishment of some form of a world government, else who is to direct the international force, the international army? Groups of foreign soldiers bivouacked throughout the United States under the direction and mandate of an international congress might arouse political opposition and be objectionable to many.

It is submitted that a new International Patent Convention might be enforced in a different way, namely by instituting international courts in the several sovereign signatory nations, composed, if desired, of distinguished judges, including recognized scientists and engineers as well as attorneys and others whose qualifications singularly fitted them for interpreting knowledge as well as justice.

Such courts in the United States (perhaps nine to twelve) could be composed, for example, of nationals of Germany, the United States and Russia; the Russian Courts of nationals of France, the United States and Russia, etc. Each court would have jurisdiction, in the country where it was established, of all causes brought before it by a non-citizen for the infringement of his patent in the country where the court is sitting. Its mandate or decree would be given full faith and credit in the corresponding courts throughout the world, and this by an express provision of the new treaty. Such a provision would be a command binding upon the signatory powers, rather than a mere principle of comity. It would tend, at least to the extent demanded by the specific terms and stipulations of the treaty, to make those sovereign states integral parts of a single world order.[6] The Chief Executive of each nation could appoint the judges who would sit in his country, together with technical consultants and other essential personnel. Appellant tribunals would be established for groups of nations.

Decrees and orders of these courts would be uniform throughout the world and would, of course, be enforced by attachment, levy or execution of the judgment, even against the property of a sovereign power. Thus, if a decree by the Spanish government was found by the court in Spain (consisting of a majority of non-Spanish judges) to have violated the terms of the treaty or convention (to which the Spanish nation had consented by its ratification, such a finding of infringement, contributory infringement, or breach would result in the recovery of damages, either by the plaintiff non-citizen of Spain, or by any one of the other signatory powers, by attachment, levy or execution against the property of the Spanish government wherever it might be found. In time, the decrees and opinions of these courts establish a firm foundation for a uniform body of law throughout the world.

All inventions and patients for war material, after being adjudicated by any of these courts anywhere, could be purchased and acquired by an international fund allocated for that purpose. These would be reserved for the sole use of any acceptable international police force which the writers of the peace may be clever enough to devise.

Special international awards might be made for outstanding inventions, particularly those of a humanitarian nature, after the suggestion of James Madison of Virginia on August 18, 1787:

> "To encourage by premiums and provisions, the advancement of useful knowledge and discoveries."[7]

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PROFESSIONAL ETHICS
SO OFTEN OBSERVED IN THE BREACH
SOME SEARCHING REFLECTIONS DEALING MAINLY WITH CHARACTER CONTAIN A CHALLENGE TO THE ENGINEER

Excerpted From An Address
by
The Rev. Bro. C. Edward

The author of the address here reproduced is a Teacher, Lecturer and Administrator. Educated at LaSalle Academy, Manhattan College and Catholic University in the United States he has also studied and taught at several institutions in Europe, notably the University of Louvain and Rome.

REV. BRO. C. EDWARD, F.S.C.
Vice President, Manhattan College

From the white heat of the present world conflict has come a number of inspired and never to be forgotten gems of language. Perhaps none more justly merits historic recognition than that of the young lieutenant who, shortly before meeting a hero's death, wrote to the members of his family asking that they "Always pray, not that I shall come back but that I will have the courage to do my duty". That one so young should speak so eloquently and should so willingly offer up his life that others might live is far greater proof of man's inherent nobility than the fulsome praises of chroniclers, the empty pronouncements of rulers or the sterile logic of philosophers could ever supply. No language could better epitomize or so well define character—the measure of a man. To him who would follow a profession character is the most essential of all qualifications. How often is it overlooked, cast aside and even scorned by some who term themselves professional men.

The beauty and appropriateness of an address, recently delivered to the alumni of the college from whence came this youth who prayed for courage to do his duty, so strongly commends itself to the professional man, that the major portion of the same is here reproduced for the inspiration which it offers, especially to those who cherish the calling of the Engineer. Would that it were possible to reproduce the eloquence of voice and manner with which this address was delivered. With permission from the author, the American Engineer eliminates the introduction and personalized features of the address that follows: *Ed.*

"There are among us veteran alumni of many years of memories and others who have not yet completed the customary period of post-graduation bewilderment. It is not too fanciful to think that, all of you, at that happy moment when your diploma was presented to you, were fired with the spark of divinity, with the glow of ecstasy, with the gleam of the champion. Perhaps, at that very moment, the realization may have come to you that you had not meant as much to Alma Mater as you might have, that you had not allowed her to be really the nourishing mother she had sought to be. And, I like to think that, within the first few minutes after you had become alumni, you whispered to yourselves a solemn promise of loyalty to Alma Mater, a promise which would be exemplified by unswerving fidelity to the motto engraved upon your diploma. And, I like to hope that a rekindling of the religious spirit, and a renascence of character, and a rededication to cultural beauty are not confined to your fellow-alumni in the various branches of the Armed Forces. Because I do hope that you too are experiencing this triple rebirth, I shall be rash enough to ask questions about it.

"There must have been a great deal of the idealist in each of you on that Commencement Day at College when you suddenly realized that your boy's life had been lived and your man's life just begun; when you sincerely determined to keep inviolate your promise to the college motto; when your seeing of visions had not yet been obscured by the 'stern realities of disillusionment'. All of you had decided the disposition you were to make of your lives and some of you have seen your hopes, at least exteriorly, realized. Wearers of the cloth, teachers, doctors, lawyers, engineers, bankers, businessmen — All the professions count representatives among you. You have attained apparent success. But what about idealism? What about your fidelity to your sworn loyalty?

"*There is the clergyman,* who, just graduated, had al-

ready yielded to the thrill of the supreme abandonment and had promised himself many years of work, study, self-abnegation, and devotedness. Time, longer or shorter, has passed since that memorable day upon which you pronounced your glorious 'Adsum' to become a disciple in aeternum. In your moment of divine enthusiasm, what soul-stirring resolutions you must have conceived. And now each day should find you more and more Christ-like and less and less attached to things mundane. The passing years should have strengthened you in the pursuit of your ideals and not driven you farther from your desire to achieve perfection. This is a thought worthy to ponder: Are our clergy-alumni still other Christs whose people come to them with faith, and confidence, and reverence?

"*Some you responded actively* to the divine promise that they who do teach shall be called great in the kingdom of heaven. You dedicated yourselves to the exacting task of education; you took upon yourselves the almost intolerable burden of bringing up other men's children. And, how wonderful were those first years in the classroom! You were young, smilingly enthusiastic, success crowned your every effort. You seemed to have found the secret for the perfect adjustment of your professional, your social, and your religious obligations. Ten, twenty, thirty years or more are behind you. Is it out of place to wonder: Has the novelty worn off? Has your enthusiasm given place to barren routine? Are you simply 'going through the motions', shameless pilferers of somebody else's research? When a teacher abandons his ideals, he becomes that most pitiable of all mortals, the man trying to give what he no longer has. This may be the acceptable time to listen to the Great Teacher telling him: 'I have given you an example'.

"*To follow that system of treatment* which, according to my ability and judgment, I consider best for the benefit of my patients and to abstain from whatever is harmful and mischievous'. Hippocrates rears his head again and warns our doctors that, once, they had signified their intention of acquiring the spirit of the modern doctor, the spirit of truth, progress, observation, independence, and self-reliance. But, the acquisition of this spirit is not the work of a day or a year. And, one must live, and have fancy offices, and cut a figure, and keep up with the medical Joneses. And, so, one becomes a stultifying quack. Abortions, fee padding, hasty diagnoses, pill peddling—who will deny that these are known to exist in the medical profession? These and other vile practices indulged by those who once swore to keep their oath unsullied and hoped, thereby, to enjoy life and 'be respected by all men in all times'. A profession which is rightly regarded as second in dignity only to ministry in the Church of God becomes, let us hazard the word, a 'racket', the slogan of which seems to be the survival of the most unscrupulous. Let us murmur a fervent 'Deliver us, O Lord' from those who dishonor this noble profession.

"*Tennyson may have seemed very dull* in the days when his poetry was being foisted upon you, yet most of you remember with pleasure his 'live pure, speak truth, right wrong, and follow the king'. A motto very neatly applicable to him who has devoted his life to the law. But, it is so easy to change in attitude; it is so difficult to be consistent. Purity of life! The very expression must make some of you smile as you think of the many whom you know who are slavishly adhering to that most disgusting of all philosophies of life: everybody's doing it. And, they would always speak the truth, these ever-alert watchdogs of the Law. So constant has been their association with words, so eager are they to prove brilliant rather than logical, so avid to gain the acclaim and the revenue that victory brings, truth seems to have become for them a defying abstraction, a something they have confused with convincing a judge or a jury. Righting wrong has no other significance than to bring their clients' colors home and out in front without ever a thought of the frequently suspect methods to which they resort to achieve their purpose. Their law books which once they enthroned in regal splendor have been dethroned and, in their place, have been set up a few not-too-weighty legal journals and the current cheap and frothy literature of the self-styled literati. They, gentlemen, the shysters, if you will, are a curse in the land who should be read out of their profession with bell, book, and candle.

"*Not so very long ago,* our campus was ringing with the praises heaped upon engineers on the occasion of the fiftieth anniversary of our School of Engineering; praises which were, indisputably, their due. But, it is far from cynical to wonder if these praises are universally applicable. Engineering as a profession is not yet solidly established, mainly, I think, because too many engineers regard engineering merely as a bread-and-butter supply and not as one of the fountain-heads of our globe's activity and progress. Too many do not cherish it as a noble vocation but merely as a quack business or trade. The gloriously exhilarating lessons coming out of this War, proving the Engineer's usefulness and indispensability in every avenue of human endeavor will do much to endow that profession with all the essential characteristics of the classic professions of a thousand yesteryears. But, ideal progress will not be actualized until it becomes natural for engineers to take a deeper interest in the glorification of their profession than they do in their own individual welfare. A profound love for his profession will inspire the real engineer to reflect how his doings will affect the future of his chosen calling before he wonders how they may militate against his own.

"*Bankers, businessmen, and all the others* can have no quarrel with me if I give them just a nod. I do not underestimate either the value or the importance of their professions. But, the morn in russet mantle clad is not too far off and even the gentlemen that you are have a right to be impatient. To those whose professions I cannot address individually, let me draw a parallel from Don Quixote's windmills: Doing battle against the baneful influences of unworthy practices may land us in

(*Continued on Page* 27)

UNITY OF PURPOSE AND PROCEDURE
BY STATE AND CHAPTER UNITS
Is the Foundation of
National Engineering Unity

THE OHIO SOCIETY OF P. E.

Sets New Standards of Qualification and Cooperation

And Demonstrates the Effectiveness Of State and Chapter Organization in Action

Using the Cuyahoga County Unit as an illustration, the American Engineer offers this article for the benefit of the professional engineer in every state in the nation. Has any other State Society surpassed the effort herein described?

The cooperation extended by the Ohio Society and its Chapter Units is an example worthy of publicizing. Not alone do they function effectively on state matters, but with real appreciation of the problems facing the National Society and the task confronting the American Engineer, they render that assistance which makes possible the improved functioning of these external agencies. To Engineer William C. Kammerer, who has filled almost every important office in his State and Chapter organizations, the American Engineer is most grateful. The following communication speaks so eloquently for cooperation that it is reproduced in the hope that other State Societies will give thought to the need for increased collaboration if the American Engineer is to be a worthwhile up-to-date publication for the Profession and for all the State Organizations.

"Engineer Walter W. Graf, President — April 3, 1943
Ohio Society of Professional Engineers
Dear Walter:

"Each issue of The American Engineer has shown an improvement over the preceding one during the past year. I believe that the March-April 1943 (Volume 13—No. 2) issue has been the best issue to date.

"On page 7 of the March-April 1943 issue appeared the following:

> The issuance of the American Engineer on a monthly basis will, it is hoped, serve to keep the membership better informed and make it more responsive to these changing times. However, this cannot be accomplished, nor can the publication carry on, unless the State Societies and the Washington Office furnish the necessary material and on time. In these times news must be fresh—or else.
>
> 'To meet the new schedule, all news items must be available by the 15th of each month in order to appear in the succeeding issue. The Editor appeals for cooperation.'

"To keep the O.S.P.E. news fresh, I believe that we should move the monthly meeting from the second Friday of the month to the first Friday of the month. This should give us sufficient time to get our news to Editor A. V. Sheridan before the 15th of each month. You will note that starting with the May issue, the American Engineer will be published monthly. I believe that we should cooperate to the fullest extent to get our news promptly to the Editor."

Very truly yours,
William C. Kammerer Cleveland Society of P.E.

Favorably acted on April Meeting.

Further illustration of cooperation is to be found in the following two letters transmitted directly after the occurrence of certain events:

"Engineer Arthur V. Sheridan — March 11, 1943
Bronx County Building
New York, N. Y.
Dear Engineer Sheridan:

"I am enclosing a copy of S. B. No. 37, which passed the Ohio Senate 30-0 on March 9, 1943. We are also enclosing a copy of Vol. 5, No. 1 of the Cleveland Engineer. The two above mentioned articles may give you sufficient material for a news item for The American Engineer.

"The Ohio Society of Professional Engineers is now working hard to get the Bill on the calendar in the House so that we can have action before adjournment which we expect to take place sometime in April.

"If you wish to hold up the material until action is taken on our Bill in the House, please feel free to do so."

Very truly yours,
William C. Kammerer

"Engineer Arthur V. Sheridan, Editor — March 31, 1943
The American Engineer
381 Fourth Avenue
New York, N. Y.
Dear Engineer Sheridan:

"Several days ago when I wrote you, I promised to keep you posted on legislative activity on Senate Bill #37. The Bill was reported out of the Reference Committee of the House about ten days ago and was assigned to the Committee on State Organization. The Committee on State Organization held a hearing at 7:30 P.M. March 30, 1943 and unanimously voted the Bill out of the committee. The Bill is now on the House calendar but has not been assigned a date for voting. It will be necessary for us to do additional work with the Rules Committee of the House so as to get a definite date for voting on the Bill.

"You are probably aware that our 28 chapters cover all of the Counties of the State. This excellent State-wide coverage has been a great help to us in the Legislature, especially with the rural legislators.

"I will keep you posted on further developments."

Very truly yours,
William C. Kammerer

Thank you Engineer Kammerer for these and subsequent communications up to April 15th.

(over)

AMENDED REGISTRATION ACT

Requires Examinations of All
Establishes Engineers in Training

Early in January of this year, the Ohio Society of Professional Engineers, as the voice of its 28 Chapters, sponsored legislation which, if effected, will place the Buckeye State in the forefront of the constantly increasing procession of commonwealths seeking thorough and progressive means for qualifying young men for the practice of professional engineering.

The manner in which this legislation has been handled and the support which it has been given by the State and Chapter organizations is a most striking illustration of the effectiveness of the professional society as a medium of expression for the engineer. One is justified in venturing the opinion that no single engineering activity has ever been better planned and better executed than the 1943 legislative program of the Ohio Society. Regardless of its ultimate outcome, the fact that the bill passed the Senate without a single vote in opposition is of itself a tribute to the profession in Ohio and to the unquestioned leadership of the State Society.

To review the modus operandi of the Society and its 28 Chapters is beyond the limitations of this publication. It is, however, worth noting, as an illustration of the important role played by the Chapter, some of the efforts and methods employed by the Cuyahoga County Unit, the largest Chapter in the state. (Note: The professional society recognizes the Chapter as the basis upon which its organization rests. Authority is routed from the Chapter to the State, thence to the National Organization—not from the National body to State and Chapter Units.)

Shortly after the legislation was introduced by Senator Jones (an engineer) of Portage County, the Cleveland Society of Professional Engineers, which is the Cuyahoga Chapter of the Ohio Society, issued the first 1943 number of the Cleveland Engineer, its official publication. So completely, yet succinctly, did the Cleveland Engineer present the proposals and the objectives of the legislation, together with the method for progressing the measure, that its language and technique, so far as the same refer to this legislation, are offered in full in the hope that other states and other chapters may emulate.

"The Cleveland Engineer"
Volume 5 January-February 1943 Number One

IMPORTANT

"Legislation has been introduced in both houses of the 95th General Assembly to amend Sections 1083-11, 1083-13, 1083-18, and 1083-21, of the General Code, relative to the qualifications, registration and practice of registered professional engineers and surveyors. The legislation is sponsored by the Ohio Society of Professional Engineers. Names and addresses of Cuyahoga County members of the 95th General Assembly are given in this issue. Later you will e asked to contact the Cuyahoga County members by a personal call, by letter, or by telegram urging them to support our legislation. Please save this issue for future reference.

WALTER A. GRAFF
President, Ohio Society of P. E.

"Proposed Legislation

"The professional engineers of Ohio are asking the Legislature to amend Sections 1083-11-13-14-18-21 General Code of Ohio for the following reasons:

"THE ROSTER (SECTION 1083-11)

"The present Law provides for the publication *annually* of a roster showing the names and places of business of all registered professional engineers and all registered surveyors. The roster is to be distributed to all registrants and to certain designated officials in each county.

"Due to lack of sufficient appropriation only one publication in each biennium has ever been possible and the policy of publishing the roster each year has not been followed. It is highly desirable that this change be made to conform to the practice of the State Board of Registration. Furthermore, it does not seem worth the effort and expense to publish a roster more frequently than once every two years.

"SURVEYOR (SECTION 1083-13)

"It is proposed in this amendment to raise the qualifications for registration as a surveyor in this State. The present requirements are *not sufficient* to give the surveyor proper professional status. *Surveying employs engineering principles and data that entitles it to be classified as a branch of engineering.* The proposed requirements, which raise surveying to a parity with other branches of engineering, is greatly to be desired and wanted by land surveyors and mining surveyors in all States.

"The proposed qualifications would not in any way impair the regular course pursued in our colleges and universities, and would not deter or prevent registration obtained by experience and examination. All applicants under this proposal will be required to pass an examination which is further explained in subsequent description under 'examinations.'

"The present Law provides for the registration of applicants by exemption (not taking an examination) providing they have graduated from an approved four year engineering course in an accredited college and have had four years of subsequent experience. All others, who have not completed an engineering course in college, are required to pass a written and oral examination prescribed by the registration board.

"It is desired, after January 1, 1946, that *all applicants* for registration as professional engineers or surveyors in this State *be required to submit themselves to an examination.* This amendment will accomplish three (3) things which will aid in establishing a more uniform code of practice.

1. *It will place all applicants, whether college trained or non-college trained, on an equal basis in procuring registration instead of the divided method which now exists.*
2. *It will terminate the disturbing conditions caused by lack of uniform courses and requirements in the various educational institutions which seek to have students recognized by the State Board for registration by exemption (without an exam). "Ohio is blessed with many educational institutions. This amendment will permit the prospective engineer to select a school of his own choosing because he will be confronted with the same examination that is prescribed for every other applicant. Thus the applicant will have free choice of method by which he may elect to become a registered professional engineer.*
3. *"It will simplify the matter of reciprocal registration with other States. At the present time only three (3) colleges in Ohio are recognized by E.C.P.D. (Engineering Council for Professional Development). When engineers from Ohio go to other*

ROBERT N. WAID, Chairman
Legislative Committee, O.S.P.E.

JOHN C. WENRICK
President Cleveland Society of Professional Engineers

States to practice engineering, the fact that they have not graduated from one of these accredited colleges causes them to be subjected to an examination and more stringent scrutiny than if they had been registered by examination.

"All states grant cordial registration to applicants from other States who have passed an examination prescribed by their local Board. Therefore, the reciprocal feature will be clarified if every applicant for registration in Ohio, be required to meet the same qualifications he will encounter in other States.

"This proposed change in the Law relative to examinations clarifies this whole matter but does not become effective until January 1, 1946. This three (3) year period will amply protect those who are taking engineering courses in accredited colleges and *more particularly those who are in the armed services* and who will want to be registered without examination when they return from the war. The method of taking the examination in two stages is prescribed in this proposed legislation. This feature gives the applicant considerable flexibility in his preparation to meet the requirements provided under this Act. Engineers and educators deem this to be a highly desirable feature.

"FEES (SECTION 1083-14)

"It is proposed to change the registration fee for surveyor from ten ($10.00) dollars, as at present, to fifteen ($15.00) dollars to be commensurate and uniform with the fee required for registration in other branches of engineering. It is proper to note here that most States require a twenty-five ($25.00) dollar registration fee for each.

(SECTION 1083-21)

"The present reciprocal registration fee for applicants from other States is ten ($10.00) dollars. It is now proposed to raise this fee to fifteen ($15.00) dollars commensurate and equal to the citizens of our own State. It would equalize fees for all registrants regardless of residence.

"CORPORATIONS (SECTION 1083-18)

"It is proposed to add to existing section 1083-18 the following paragraph:

'No corporation shall hereafter be granted a charter to engage in the practice of professional engineering or surveying, nor shall any corporation hereafter formed use or assume a name involving the word 'Engineer', or 'Engineering' or any modification or derivative of such term except a non-profit membership corporation composed exclusively of professional engineers.'

"This amendment is proposed in order to clarify existing statutes, the purpose of which is to prevent a corporation, organized under the laws of Ohio, from performing professional services. In section 8623-3 of the General Code (this section is general law applying to all professions) it is provided that, 'A corporation for profit may be formed for any purpose, other than for carrying on practice of any profession.'

"While it is believed that we can bring action in the courts and prevent corporations from being formed to practice professional engineering and surveying, yet such action will take *both time and money.* The proposed amendment will stop corporations *hereafter organized* from practising the profession and from using the words 'Engineer' or 'Engineering' in their name. The amendment is not retroactive. It will merely stop new abuses and, without the delay incident to court action, it will place professional engineering and surveying on a parity with the professions of law and medicine.

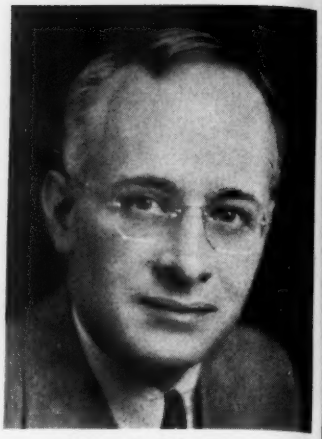
LEGISLATORS

"The following are legislators from Cuyahoga County for the 95th General Assembly of Ohio. Please keep their names and address. You will be asked to write, telegraph, or contact them when the Ohio Society of Professional Engineers' legislation is on the floor.

STATE SENATORS

(D) Emil A. Bartunek, Sec. and Treas. B. L., 18720 Scottsdale Blvd., Shaker Heights, O. Acme Savings & Loan Co.

(D) Wm. M. Boyd, Fraternal Organizer, 18119 Lake Shore Blvd.



WM. C. KAMMERER
Chairman of Special Committee Reg. Act Cleve. Soc. of P. E.

(D) Frank S. Day, Machinist, 1847 East 63rd St., Cleve., O.

(D) Margaret A. Mahoney, Attorney, 2623 Kingston Road, Cleveland Heights, O. 1528 Standard Bldg.

(R) Frank E. Bubna, Att., 1939 E. 85th St., 308 Euclid Ave.

(R) John A. Corlett, Attorney, 3364 Lee Rd., Shaker Heights, O. 1820 N.B.C. Bldg.

STATE REPRESENTATIVES

(R) Elmer Geo. Bartunek, Machinist, 10015 Anderson Ave., Cleveland, O.

(R) Leslie G. Campbell, Attorney, 3435 East 113th St., Cleveland, O. National Screw & Mfg. Co.

(R) Wm. F. Eirick, Clay Products, 12603 Clifton Blvd., Lakewood, O.

(R) Chester K. Gillespie, Attorney, 2207 East 80th St., Cleveland, O. 416 Hickox Bldg.

(R) Kenneth S. Nash, Educator Attorney, 4025 Elmwood Rd., Cleveland Heights, O. Becht & Co.

(R) Wm. R. VanAken, Attorney, 3680 Rolliston Rd., Shaker Heights, O. Wm. J. VanAken Co., 1715 Euclid.

(D) John J. Babka, Attorney, 2917 Washington Rd., Shaker Heights, O. 5114 Broadway.

(D) John J. Carney, Deputy County Treas., 3206 West 165th St., Cleveland, O.

(D) John J. Day, Former Supvr. Sanitary Engr. 17102 Kinsman Rd., Shaker Heights, O. International Vibration Co., 16702 Waterloo Rd.

(D) John T. DeRighter, Secy. Bldg. & Loan, 13615 Sixth Ave., East Cleveland, O. Lithuanian Savings & Loan Co.

(D) Mrs. Elizabeth F. Gorman, Lecturer—Parliamentarian, 2555 Kenilworth Rd. Cleveland Heights, O.

(D) Lody Huml, Att., 3037 Albion Rd., 1418 Standard Bldg.

(D) Jos. W. Kovach, Deputy Sheriff, 3553 East 82nd St.

(D) Howard M. Metzenbaum, Attorney, 12403 Chesterfield Ave., Standard Bldg.

(D) Michael P. O'Brien, Attorney, 3713 East 147th St. 1418 Standard Bldg.

(D) Edwin F. Sawicki, Attorney, 2185 Briarwood Rd., Cleveland Hts. 1826 Standard Bldg.

(D) Frank J. Svoboda, Newspaper Publisher, 13906 Larchmere Ave., Cleveland O.

(D) Chas. F. Sweeney, Merchant, 13433 Detroit Ave., Lakewood, O.

"Special Committee

"President John C. Wenrick appointed a Special Committee from our chapter to assist the Ohio Society of Professional Engineers Legislative Committee on the passage of a Bill to strengthen the Registration act. The personnel of the local committee is: Engineers Montford Blake, Harvey R. Hawgood, John O. McWilliams, Fred R. Williams, R. G. Youngmeyer, and W. C. Kammerer, Chairman.

"The Bill to strengthen the Registration act is known as Senate Bill 37 and House Bill 69. The Bill is still in committee. As soon as it is published at Columbus, it will be republished in the 'Cleveland Engineer.' The Special Committee will issue instructions to our membership for action on both Bills."

The March number of the Cleveland Engineer contained the bill, together with a report of the Ohio Society Legislative Committee Report, and an announcement concerning the status of the measure and recommendations to members. These follow:

"**The Cleveland Engineer**

Volume 5 March 1943 Number Two

95th General Assembly, Regular Session, 1943-1944

S. B. No. 37

MR. JONES of Portage

A B I L L

To amend sections 1083-11, 1083-14, 1083-18 and 1083-21 of the General Code, relative to the qualifications, registration and practice of registered professional engineers and surveyors.

Be enacted by the General Assembly of the State of Ohio:

Section 1. That sections 1083-11, 1083-13, 1083-14, 1083-18 and 1083-21 of the General Code be amended to read as follows:

Sec. 1083-11. A roster showing the names and places of business of all registered professional engineers and all registered surveyors shall be prepared by the secretary of the board during the month of January of **1** *each even numbered year.*

Copies of this roster shall be mailed to each person so registered, placed on file with the secretary of state, and furnished to the clerks of court of all counties and the auditors of the principal cities of the state and to the public upon request.

Sec. 1083-13. The following shall be considered as minimum evidence satisfactory to the board that the applicant is qualified for registration as a professional engineer, or surveyor, respectively, to wit:

(1) As a professional engineer:

a. Graduation from an approved course in engineering of four years or more in a school or college approved by the board as of satisfactory standing; and a specific record of an additional four years or more of active practice, *subsequent to graduation,* in engineering work of a character satisfactory to the board, and indicating that the applicant is competent to be placed in responsible charge of such work, *has passed the prescribed written, or written and oral examinations; or*

b. Successfully passing a written, or written and oral examination in engineering prescribed by the board, and designed to show knowledge and skill approximating that attained through graduation from an approved four year engineering course; and a specific record of eight years or more of active practice in engineering work of a character satisfactory to the board and indicating that the applicant is competent to be placed in responsible charge of such work.

(2) As a surveyor:

a. **2** *Graduation from an approved course in engineering and surveying of four years or more in a school or college approved by the board as of satisfactory standing and a specific record of an additional four years or more of active practice, subsequent to graduation, in engineering and surveying work of a character satisfactory to the board, indicating that the applicant is competent to be placed in responsible charge of such work, has passed the prescribed written or written and oral eaminations;* or

b. Successfully passing a written, or written and oral, examination in surveying prescribed by the board; and a specific record of **3** *eight* years or more of active practice in *engineering and* surveying work of a character satisfactory to the board and indicating that the applicant is competent to be placed in responsible charge of such work.

At any time within five years after this act becomes effective the board may accept as evidence, in lieu of a prescribed examination, that the applicant is qualified for registration as a professional engineer a specific record of ten years or more of active practice in engineering work of a character satisfactory to the board and indicating that the applicant is qualified to design or to supervise construction of engineering work and has had responsible charge of important engineering work for at least four years.

At any time within five years after this act becomes effective the board may accept as evidence, in lieu of a prescribed examination, that the applicant is qualified for registration as a surveyor, a specific record of eight years or more of active practice in surveying work of a character satisfactory to the board and indicating that the applicant has had responsible charge of important surveying work for at least three years.

After this act shall have been in effect five years, the board shall issue certificates of registration only to those applicants who meet the requirements of section **4** 1083-13, *subparagraphs* 1 (*a*) *or* (*b*), *or* 2 (*a*) *or* (*b*), *or section* 1083-21 *of the General Code.*

Provided, that no person shall be eligible for registration as a professional engineer, or surveyor, who is not of good character and reputation.

In considering the qualifications of applicants, responsible charge of engineering teaching may be construed as responsible charge of engineering work. The satisfactory completion of each year of an approved course in engineering in a school or college approvd by the board as of satisfactory standing, without graduation, shall be considered as equivalent to a year of active practice. Graduation in a course other than engineering from a college or university of recognized standing shall be considered as equivalent to two years of active practice; provided, however, that no applicant shall receive credit for more than four years of active practice because of educational qualifications. The mere execution, as a contractor, of work designed by a professional engineer, or the supervision of the construction of such work as a foreman or superintendent shall not be deemed to be active practice in engineering work; unless such work involves engineering practices, or the applicant presents evidence of additional engineering practice of a character satisfactory to the board and indicating that the applicant is competent to be placed in responsible charge of engineering work.

Every person applying subsequent to January 1, 1946, *for a certificate of registration as a professional engineer or surveyor shall be required to pass a written or written and oral examination prescribed by the board. In addition to passing the requisite examination he must submit evidence, satisfactory to the board, that he has completed the eight years of training and active practice or eight years of active practice required in section* 1083-13, *subparagraphs* 1 (*a*) *or* (*b*), *or* 2 (*a*) *or* (*b*), *or section* 1083-21 *of the General Code.*

The board may permit the applicant for a certificate of registration as a professional engineer or surveyor to take the prescribed examination in two stages. The first stage of the examination may be taken by the applicant at any time after he has completed four years of the required eight years of active practice or training and active practice.

This first stage of the examination shall test the applicant's knowledge of fundamental, technical subjects, including mathematics and the basic sciences. Satisfactory passage of this portion of the examination shall constitute a credit for for the life of the applicant, or until he shall have been registered.

When the applicant has satisfactorily passed the first stage of the examination he shall be given an appropriate certificate by the board showing his status as an engineer or surveyor in training.

The second stage of the examination shall cover the more advanced professional training of engineers or surveyors as amplified and matured by practical experience and shall test

the applicant's ability to apply the principles of engineering or surveying to the actual practice of his profession.

The applicant shall not be eligible to take the second stage of the examination until he has satisfactorily completed the required eight years of active practice or training and active practice. Nothing in this act shall be construed as requiring the applicant to take the examination in two separate stages. He may, at his option, take both stages of the examination at one time after he has completed the required eight years of active practice or training and active practice.

Any person having the necessary qualifications prescribed in this act to entitle him to registration shall be eligible for such registration though he may not be practicing his profession at the time of making his application.

Sec. 1083-14. Application for registration shall be on forms prescribed and furnished by the board, shall contain statements made under oath, showing the applicant's education and detail summary of his technical work and shall contain not less than five references, of whom three or more shall be engineers having personal knowledge of his engineering experience.

The registration fee for professional engineers shall be fifteen ($15.00) dollars, five ($5.00) dollars of which shall accompany *the* application, the remaining ten ($10.00) dollars to be paid upon the issuance of the certificates.

The registration fee for surveyors shall be **5** *fifteen ($15.00)* dollars, five ($5.00) dollars of which shall accompany application, the remaining **6** ten *($10.00)* dollars to be paid upon the issuance of the certificate.

Should the board deny the issuance of a certificate of registration to any applicant the initial fee deposited shall be retained as an application fee

Sec. 1083-18. A firm, or a co-partnership, or an association may engage in the practice of professional engineering or surveying in this state.

S. B. No. 37

provided only such practice is carried on by professional engineers or surveyors, respectively, who are registered in this state.

No corporation shall hereafter be granted a charter to engage in the practice of professional engineering or surveying, nor shall any corporation hereafter formed use or assume a name involving the word "engineer" or "engineering" or any modification or derivative of such term except a non-profit membership corporation composed exclusively of professional engineers.

Sec. 1083-21. The board may, upon application therefor, and the payment of a fee of **7** *fifteen* ($15.00) dollars, issue a certificate of registration as a professional engineer or surveyor to any person who holds a certificate of qualification or registration issued to him by proper authority of the national council of state boards of engineering examiners, or of the national bureau of engineering registration, or of any state or territory or possession of the United States, or any country, provided that the requirements for the registration of professional engineers or surveyors under which said certificate of qualification or registration was issued to not conflict with the provisions of this act and are of a standard not lower than that specified in section 3 of this act.

Section 2. The section 1083-11, 1083-13, 1083-14, 1083-18 and 1083-21 be, and the same are hereby repealed.

The following matter elimited from the present law—see corresponding numbers with asterisks in body of bill:

1. each year, commencing one year from the date this law becomes effective:

2. Satisfactory completion of an approved course in surveying in a school or college approved by the board as of satisfactory standing; and an additional two years or more of active practice in surveying work of a character satisfactory to the board and indicating that the applicant is competent to be placed in responsible charge of such work:

3. four

4. 13, 1 (a) or (b), or 2 (a) or (b), or section 21

5. ten ($10.00)

6. five ($5.00)

7. ten ($10.00)

"O.S.P.E. LEGISLATIVE COMMITTEE REPORT

"The Ohio General Assembly has now been in session about two months. It is therefore important that we give you a progress report on legislation which is of interest to the Professional Engineer.

"We are pleased to report that Senate Bill No. 37 by Senator James A. Jones (Registered Professional Engineer) of Portage County, was passed by the Senate on March 9, 1943, by a vote of 30-0. We are especially indebted to Senator-Engineer Jones for the able manner in which he handled and presented the Bill in the Senate. It is a gratification to report that the officers and legislative committees from our Chapters gave prompt and able assistance in contacting senators in their counties. The Bill now goes to the House. Every effort will be made to have Senate Bill No. 37 referred to a standing committee of the House for an early hearing. You will be contacted at a later date for further assistance.

"At this time we wish to call to your attention two other items which should have prompt action:

"(1) A Bill sponsored by the County Engineers Association to secure a merited increase in salary for the county engineers. It is known as Senate Bill No. 103 by Albert L. Daniels of Highland County. The Bill has been recommended for passage by the Taxation Committee of the Senate. (Bill Passed Senate 28-0 on March 11.) You are urged ot give the Bill your support. The Bill specifies a minimum salary of $3,000 for County Engineers in all counties and extends upward to a maximum salary of $6,500 in the larger counties. *Over half of the counties in Ohio now pay their county engineer less than* $3,000 *per year.* The raises provided for in this Bill are in accord with the salary schedule of the Ohio Society of Professional Engineers. Tell your Representatives that the increases are merited and that the Bill should be enacted into law.

"(2) The Ohio Civil Service Employees Association will soon be given a hearing by the Finance Committee of the House relative to the Provision for an increase in salary for all civil service employees of the State. Hundreds of our registered engineers in State employment will be benefited by an increase. Furthermore, increases granted to engineers in State employment will set a precedent for increases which should be granted to Engineers who are employed by cities and counties.

"The requests in the legislature for increases in salaries are along the line covered by the resolution adopted at the Ohio Society of Professional Engineers 64th annual convention in Columbus, February 12, 1943, and known as, 'Resolution Dealing With the Cost of Living Index Adjustments of Engineering Salaries.' It provides for a 20 per cent increase in salary for those receiving less than $2000 per year and for a maximum increase of $400 for those receiving more than $2,000 per year, to correspond with the formula used in connection with Federal Employees.

"The persons who are handling this matter for the Civil Service Employees Association ask that we contact our Representatives in the House who are members of the House Finance Committee. The recommendation for legislative action will be made by the Finance Committee. As in the case of the County Engineers we should give all possible aid to our engineers in civil service positions. Accordingly you are requested to contact your Representative on the Finance Committee at once and lend your support in the effort to secure reasonable salaries for our engineers in public employment.

"The Cuyahoga County members of the Finance Committee of the House are:

John J. Day (D), 17102 Kinsman Rd., Shaker Heights, O., Former Supvr., Sanitary Engineer.

(*Continued on Page* 27)

Submitted as:

ITEMS OF GENERAL INTEREST

RESERVE OFFICERS NEEDED

WAR DEPARTMENT ISSUES NEWS BULLETINS

(See Editorial in this issue for comment)

At the request of the Executive Officer of the Military Government Division of the Office of the Provost Marshal General, the American Engineer directs the attention of its readers to the fact that the Services of Supply are in need of Specialists for the Officers Reserve Corps. Appended herewith are full particulars, up to date.

Army Plans Ahead for Military Government Overseas

Special Schools Set Up to Train Officers for Administrative Duties in Occupied Territories

Looking ahead to the time when land now under Axis domination will be wrested from them, the Army is operating a School of Military Government under the general supervision of the Provost Marshal General, at the University of Virginia, Charlottesville, Virginia. Designed to train officers for future duties in military government and liaison work, the School provides a highly intensified 16 weeks course for qualified commissioned officers in the Army of the United States and to a small number of civilians with specialized training. The members of this latter group are commissioned in the Specialists Reserve Section, Officers Reserve Corps, prior to their attendance at the School.

When the United States Army captures territory from the enemy, it is the responsibility of the Commanding General of that particular theatre of operations to set up a military government over the occupied land. He becomes military governor and is in supreme control until such time as it is possible to re-establish a civil government. It is extremely difficult for the Commanding General's regular staff to handle the countless details involved in the administration of a military government, due to the press of their other duties, and the specialized knowledge required in many cases. Thus the War Department, through the School of Military Government and other special schools, is training officer personnel to act as top administrative officers and as junior officers in military governments under the direction of a theater's Commanding General. A pool of technical talent has also been established, the members of which are called upon to fill technical and advisory posts.

The Importance of Military Government

The term "Military Government" has an ominous ring in the ears of many people. When administered by our enemies, it has, in many cases, been harsh and inhuman. The United States Army, however, realizes that its control over conquered people must, while meeting military necessities, be humane and understanding if it is to be instrumental in establishing a favorable and enduring peace. The experience gained in 20-odd occupations during our history is valuable, as is that gained by other of the United Nations whose experience is available to us. The policy of the United States Army in regard to military government, and the one on which the teachings of the School are based, is as follows:

"The military government should be just, humane, and mild as practicable, and the welfare of the people governed should always be the aim of every person engaged therein."

Students

The School of Military Government obtains its students from recommendations of the ten Service Commands, various supply and administrative divisions of the War Department, the Commanding Generals of the various armies, from personal applications of officers between the grades of Captain and Colonel, and from a selected few of the specially-qualified civilians commissioned in The Specialist Reserve Section, Officers Reserve Corps, who are members of the reserve pool of technical and professional specialists created by The Provost Marshal General. Those with experience and training in the fields of public works (transportation; gas, electric and water systems); finance (taxation, monetary systems, etc.); public health (sanitation, medicine, disease control); education (supervision of school systems); public safety (maintenance of order, prevention of crime); legal (supervision of military and civil courts); communications (postal service, telegraph, telephone, etc.); public welfare (care of infants, children, the needy and aged); and economics (supervision of agriculture, manufacture, and trade) are selected for further detailed instruction at the School.

Method of Instruction

Instruction at the School of Military Government is of two types, (1) a lecture program, and (2) a program of practical problems. Under (1), students are taught the principles of military government, military courts, proclamations, ordinances, state and municipal governments, international law, and public administration. They are also given detailed information regarding the conditions and characteristics of the countries and regions which may be occupied. Under (2), the class, divided first into small committees, actually conceives plans for the setting up of military governments in certain selected cities, countries, and regions. This affords students practical experience in applying the principles and methods they have studied in the lecture program.

Many factors must be taken into consideration before determining the particular type of military government to be set up in each territory. Location is important—whether it lies in the combat zone, in the zone of communications, or is an occupied country after the armistice. This condition greatly affects the procedure on questions having to do with, for example, protection of food and water supplies, rationing of food and clothing, guarding of banks and public buildings, establishment of blackouts, etc. Students of the School are taught how best to proceed when face-to-face with the many different problems brought about by varying conditions.

The final exercise in the course given at the School consists of drawing up plans for military government of the principal enemy countries. These final plans are put to practical use by the Army. They are studied by the proper authorities for any valuable suggestions they may contain as regards to actual methods of operation when enemy countries are occupied. Students' solutions are studied by research groups at the School for the purpose of perfecting and refining them for future consideration and employment.

Commandant

The Commandant of the School of Military Government is Brigadier General C. W. Wickersham, a prominent lawyer in civilian life. General Wickersham is a veteran of the last World War in which he was awarded the Distinguished Service Medal and the Legion of Honor. Prior to his appointment as Com-

mandant of the School, he served as Assistant Chief of Staff, G-2, First Army.

The Assistant Commandant is Colonel Frank H. Hastings, Coast Artillery Corps. The Director of Instruction is Lieutenant Colonel Hardy Cross Dillard. The staff of the School includes officers of extensive experience and a wide knowledge of foreign lands. The regular faculty is supplemented from time to time by special lecturers, including officers and outstanding authorities on civil life in enemy countries. These lecturers supply special information on the systems of government in territory controlled by the enemy—geography, history, of the people, national psychology, and like subjects

Additional Activities

In addition to the School of Military Government, courses in military government are offered at The Provost Marshal General's Training Center, Port Custer, Michigan, to selected junior officers and enlisted men of the Corps of Military Police. These courses are designed to train men for future assignment to occupational police units in areas taken over by our armed forces.

Since the Army's mission insofar as military government is concerned is primarily an administrative one, many underlying policies of such a government cannot be determined by the War Department. The political policy will be set up by the State Department, the fiscal policy by the Treasury Department, the Federal Reserve Board, etc. Because of this limitation, the Army selects a certain number of technicians for military government work from the nominations of certain government agencies such as State, Treasury, and Commerce Departments, Board of Economic Warfare, etc. These technically qualified civilians are formed into a pool. They are commissioned in the Specialist Reserve Section, Officers Reserve Corps, but kept on an inactive status until needed. They may be called to active duty for a training period, not to exceed four months, during which time they will receive Army indoctrination courses and special instruction at selected colleges and universities on the areas to which they may subsequently be assigned, as required. In addition, certain civilian agencies have been asked to make special studies in the field of international law and economics, the results to be incorporated with existing information on military government.

Besides training officers for military government, the Provost Marshal General also trains liaison officers. With American troops stationed in many United Nations, countries and territories all over the world, friendly contact between our soldiers and civil governments and civilian populations is of prime importance. To further this relationship and to promote a better understanding between these groups, is the important duty of our Army's liaison officers.

Study of Enemy Methods

In formulating the courses taught at the School of Military Government, the procedure followed by the Germans and Japanese upon occupation of conquered countries is also studied. This is not done so that the Army may pattern our form of military government after those of our enemies, but rather to find out more about conditions under which the people of Axis dominated territories are now living. Such information is valuable to the School and helps it to develop more competent and well-informed officers capable of administering an efficient military government that will convert hostility into friendship and promote a better understanding between our country and the people that will some day be living under our flag.

War Department—Army Service Forces
Office of the Provost Marshal General
Washington
SPECIALISTS POOL
Specialists Reserve Section
Officers Reserve Corps

The Provost Marshal General is creating a pool of highly skilled men in a variety of technical and professional fields for future assignment in the military government of areas to be occupied by American armed forces.

Those selected will be commissioned in the Officers Reserve Corps, Army of the United States, but will not be called to active duty until their services are required. Meanwhile, they will be carried in an inactive status without pay, permitting the continuance of their present civilian activities.

To be eligible for a commission in this "Specialists Pool", applicants must have had a good basic education and broad executive and administrative experience in government with a city, state, county, or federal department, or as experts in finance, education, sanitation, public welfare, public works and utilities, communications, public health, public relations, public safety, or economics. Importance is attached to demonstrated executive and administrative ability, and to knowledge of foreign countries and foreign languages.

All persons commissioned in the Specialists Pool for military government will be called to temporary active duty for a four months' course of training, including basic military indoctrination, the principles of military government, and special area and language studies, either at the School of Military Government, Charlottesville, Virginia, or at certain colleges and universities selected for this purpose.

Reserve commissions may be granted only in accordance with established War Department regulations. Only citizens of the United States are eligible. No civilians without prior commissioned service are eligible if they have not attained their 35th birthday, unless classified IV-F by Selective Service on account of physical disability. Persons over 35, but who have not attained their 38th birthday at the date of appointment, are not eligible if classified as Class I-A or Class II. Persons over 55 years of age will not be considered for the Specialists Pool, and only in exceptional circumstances will those over 50 be recommended favorably. No civilian, of any age, may be appointed if classified II-A, II-B, or III-B, unless released from such classification by his local Selective Service Board. In addition, only persons who qualify physically for overseas service will be accepted.

The Officer Procurement Service is the sole agency for the procurement of officers directly from civil life, for all branches of the Army. Civilians should address applications to that Service, Munitions Building, Washington, D. C., or to the District Officer nearest their homes.

For The Provost Marshal General:

Jesse I. Miller, Colonel, CMP
Director, Military Government Division

THE NATIONAL COUNCIL
of State Boards of Engineering Examiners
ISSUES QUARTERLY BULLETIN

The first quarterly issue of The Registration Bulletin for 1943 sets forth the Engineer in Training Programs of New York, discusses the subject of Canons of Ethics, advises that Oregon Pioneered in Engineering Exams, presents a Budget for 1943, a Financial Statement or 1942, and among other matters informs one that the U. S. Directory of Registered Professional Engineers

> "is now being prepared for publication and the Lewis Historical Publishing Company, Inc. of New York, N. Y., publishers of 'Who's Who in Engineering,' expects to start delivery of this directory in June. This directory will contain only the names of registered engineers furnished the National Council by the various State Boards of Registration and no attempt is being made to include all of the temporary addresses of registrants. The publishers have received quite a number of orders for this directory and it is expected that, when it is distributed and its value recognized, there will be a real demand for this national list of registered engineers. Various departments of the Federal Government have repeatedly requested such a consolidated list of legally qualified engineers of the United States."

AN ENGINEER'S OATH

From the pen of Engineer C. Fred Germeyer, of the Harrisburg Chapter of the Pennsylvania Society of Professional Engineers, comes a suggestion for an Engineer's Oath that is well worth publicising. In fact, the Editor presumes an opinion that, with some editorial changes, it is unexcelled by anything yet presented. The letter accompanying the proposal is a modest one which ably sets forth the principles upon which the author builds his effort. To quote in part:

> "To me an oath should be of such character that an engineer in the year 2000 could take it, despite changing times, with as much propriety as he could today. It should be so universal that an engineer of any nation conceivably even a German or a Jap could take it. It should be reasonably short, dignified, reverent; be impressive both to the engineer and the public; point to our traditions giving also an implied definition of engineering; and certain specifically, but in general terms, 'I will do this and I will do that'.
>
> "The matter of allegiance to territorial divisions, mention of bad workmanship, allusion to compensation, etc. are matters for a detailed code of ethics.
>
> "The aggressive work of the Ohio contingent deserves the highest praise especially their commendation for our extended code of ethics which certainly should be recommended for study and adoption."

"SUGGESTED ENGINEER'S OATH

"Realizing the Profession of Engineering springs from and has its roots in the same Everlasting Principles of Nature that hold the Universe together and make it function I will henceforth regard myself as a servant and interpreter of these, God's Basic Laws, in Truth, Honesty, Sincerity, and Fairness, as only One could who has a reverent sense of the vastness of this Vista and of the responsibility he undertakes.

"Realizing that the unalterable Laws of Gravity, Mass and Time; the Characteristics of Materials; the Principles of Chemical Action, the various forms of Energy, Light, Heat, Electricity; of Radiant Periodic Phenomena in general, are the Tools, the Materials, the Forces with which the Engineer expresses Pure Science in Practical Works for the good of Humanity I must, to be consistent, respect Man's Laws and the works of my fellow humans.

"Realizing that Milestones in Human Progress are Milestones in Engineering; that the Lever, the Wheel, the Telescope, Reaper, Loom, X-ray, Automobile, Radio, ad infinitum are my Heritage I will never dishonor them by poor workmanship or deceit.

"I will ever maintain an open mind to view new horizons as Frontiers of Knowledge are extended, trusting and striving that to me may come the privilege and opportunity to contribute in even some slight measure to Engineering Achievements.

"I will strictly follow the Code of Ethics and Practice of My Profession that has evolved from its long lineage and High Traditions.

"I will do these things I do Solemnly Swear."

POST-WAR HIGHWAYS

LEGISLATION BEFORE CONGRESS

A measure providing for the immediate preparation of plans for highway and allied construction to be undertaken as a post-war program of employment was introduced recently in both Senate and House of Representatives. The proposal purports to

> "authorize appropriations for the post-war construction of greatly needed highways and bridges, to eliminate hazards at railroad-grade crossings, to provide for the immediate preparation of plans and acquisition of rights-of-way—to cushion the post-war conversion to peace time economy, and for other purposes."

The legislation which would supplement the Federal Aid Road Act of 1916 is an important step toward the provision of widespread federal assistance for public works as a means of preventing extensive unemployment after the war. Engineers should be in the forefront in the matter of formulating plans and policies for Post-War Construction. Capital projects will serve not alone to provide employment but also to increase the nation's wealth.

The sponsors of the measure are Senator McKellar of Tennessee in the Upper House and Congressman Robinson of Utah in the House of Representatives. The bills are Senate #921 and H.R. #2426. (Referred to the Committee on Post-Offices and Post-Roads in the Senate).

PUBLIC HEALTH SERVICE

Proposals Affecting Sanitary Corps Amended.

Recent changes in the wording of Senate Bill No. 400 and House of Representatives Measure No. 649 are in keeping with the recommendations made before Legislative Committees by the National Society of Professional Engineers. According to Secretary Larson the legislation as now proposed affords protection and opportunity for Engineer Officers in the Sanitary Corps of the Public Health Service. In each branch of the Congress the proposal has been referred to the Committee on Interstate and Foreign Commerce. Representations to individual members of Congress by State and Chapter units should be made in support of the efforts of N. S. P. E.

Announcement!

MEMBERS IN ARMED FORCES

Commencing with the June issue the American Engineer will report on members of N. S. P. E. who are in the Armed Forces, to the extent that appropriate information is forthcoming. That no previous comments of this kind have appeared is due to the necessity for recognizing the proprieties and for avoiding embarrassment. The number of members in the Armed Forces is large and includes all ranks from General and Admiral to Private and Seaman. Among these are some who have rendered outstanding service to both Country and Profession but whose modesty has restrained submissions relevant to themselves. To publish material concerning some while omitting news of others who have not submitted, but of whom indirect information is occasionally received, could readily provoke criticism. However the justification for a column concerning the subject in question is generally recognized; the American Engineer therefore invites news of its members in service and requests State Societies and Chapters as well as individuals to forward items pertaining to members in the Armed Forces.

Fragments from

STATE & SOCIETY ACTIVITIES

ILLINOIS

ROSTER OF OFFICIALS

Following is a complete roster of the Officers, Chairmen and Committeemen of the Illinois Society of Engineers:

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J. H. Morgan, Vice-President
Alex Van Praag, Jr., Past President
C. J. McLean, Director to 1945
G. H. Anderson, Director to 1947
H. E. Babbit, Secretary-Treasurer

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J. E. Weinel, Madison-St. Clair
G. M. Dixon, Lake County
N. H. Gundrum, Capital
D. M. Campbell, Chicago
Arnold Lundgren, Rock River
W. J. Putnam, Champaign County
E. E. Cooper, Central Illinois
O. M. Andres, Egyptian
F. L. Osborn, Illinois Valley
C. M. Noethling, Joliet

NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS REPRESENTATIVE

Alex Van Praag, Jr.

ILLINOIS ENGINEERING COUNCIL REPRESENTATIVES

L. M. Spurling, Chairman
G. H. Anderson
R. M. Lobdell
W. W. Wallace

SECTION OFFICERS FOR 1943

DRAINAGE

Godfrey Sperling, Chairman; R. A. Burt, J. H. Montgomery.

ELECTRICAL, MECHANICAL AND MINING

Theodore C. Coe, Chairman; Floyd Troxel, George E. Ekblaw.

PROFESSIONAL ACTIVITIES

W. S. Huntington, Chairman; L. J. Lowden, C. K. Willett, H. H. Coe.

SEWERAGE

Roy Wells, Gen. Chairman

SUB-SECTION ON DESIGN

Wm. J. Downer, Chairman; Kenneth V. Hill, Donald H. Maxwell, C. N. Stutz.

SUB-SECTION ON OPERATION

J. R. Longley, Chairman; Phillip J. Schriner, C. C. Larson.

ROADS AND PAVEMENTS

Duncan Campbell, Chairman; Miles Lamb, Wm. S. Howard.

STRUCTURAL

Wm. S. Krause, Chairman; Henry Penn, Edward E. Alt.

SURVEYING AND CITY PLANNING

A. S. Bakken, Chairman; Richard Weinel, W. T. Neiman.

PUBLIC AFFAIRS

Paul Hansen, Chairman; R. L. Whannel, C. M. Noethling.

WATER SUPPLY

E. E. Alt, Chairman; H. A. Spafford, Miles Lamb.

CHAPTER OFFICERS

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N. H. Gundrum, Vice-President
H. C. Fisher, Secretary-Treasurer
N. H. Gundrum, Chapter Representative

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E. A. Pettitt, Director
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E. E. Cooper, Chapter Representative

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John Doak, President
G. E. Ekblaw, Vice-President
H. L. White, Secretary-Treasurer
W. J. Putnam, Chapter Representative

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J. A. Moore, President
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D. M. Campbell, Chapter Representative

EGYPTIAN

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C. J. Stephens, Secretary-Treasurer
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George Fisher, Vice-President
Wm. Tremper, Secretary-Treasurer
Fred Renz, Chapter Representative

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S. E. Tracy, Vice-President
Howard Hassert, Secretary-Treasurer
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Frank J. Kramer, 1st Vice-President
R. Nelson, 2nd Vice-President
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G. M. Dixon, Secretary-Treasurer

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A. Y. Wade, President
S. N. Daniels, Vice-President
W. S. Krause, Secretary-Treasurer
J. E. Weinel, Chapter Representative

ROCK RIVER

R. M. Ferguson, President
C. F. Andrews, Vice-President
A. H. Ferger, Secretary-Treasurer
A. A. Lundgren, Chapter Representative

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G. E. Ekblaw, Chairman; W. W. Hinshaw, G. H. Dell, C. M. Roos

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J. H. Morgan, Chairman; H. E. Babbitt, A. A. Lundgren, R. M. Ferguson, H. H. Coe, J. J. Woltmann, G. E. Ekblaw

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PROGRAM

Alex F. Campbell

LEGISLATIVE

T. G. LeClair, Chairman; R. W. Wallace, R. M. Lodbell, N. H. Gundrum, G. E. Rynearson, A. M. Kaindl, L. M. Spurling, J. A. Harman, W. D. P. Warren.

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RESOLUTIONS

C. M. Noethling, Chairman; J. E. Ametutz, Co-Chairman, C. F. Abraham, J. L. Howie, Jr., O. M. Andres, Miles Lamb

COLLECTIVE BARGAINING

C. J. McLean, Chairman; A. H. Ferger, J. E. Weinel, G. M. Dixon, C. K. Willett, Alex Van Praag, Jr. W. W. Wallace, Ex-officio

MUNICIPAL FINANCE

C. B. Garnsey, Jr., Chairman; S. T. Anderson, A. J. Schafmayer, C. H. Sheppard, A. Klarkowski

LAND SURVEYORS EDUCATION

W. H. Rayner, Chairman; James Anderson, Ill., J. E. Weinel, F. H. Renz, J. E. Smith, J. C. Penn, Max Seiberling

Retain this issue. The above information may be useful to you during 1943!

INDIANA

1943 Society Officers and Directors

The current officers and directors of the Indiana Society are:

Clyde A. Walb, *President*

Ralph E. Simpson, 1*st Vice-President*

Witt W. Hadley, 2*nd Vice-President*

James E. Loer, *Secretary*

C. E. Vogelgesang, *Treasurer*

Ben H. Petty, *National Director*

Joseph L. Quinn, *Executive Secretary*

DIRECTORS

M. G. Johnson, Roy Biberstine, Lewis S. Finch, C. Gray, R. L. Pike, Glenn Allen, H. B. Overesch, W. J. Krull, J. E. Hupp, Jr., C. R. McAnlis, Arthur F. Buerkle, Fred B. Mendenhall.

New Chapter in Prospect

At the present writing, there are excellent prospects for the formation in the near future of a new chapter in that part of Indiana which comprises the central eastern part of the state. As the state unit is the most important cog in the National Society, so is the chapter organization indispensable to the State Society as an active political entity in the structure of the professional state body.

Increased Dues

From all indications, the increase in Society dues from $6. to $10. per year will result in increased membership. As has been the case in every instance, whether Chapter or State Society, with which this Editor is familiar, an increase in dues has been accompanied by an increase in members. As the Indiana Professional Engineer states:

> "prospects are that we will have a large paid-up membership, thus debunking the theory of some members, who feared that the law of diminishing returns would become operative and cause disaster to the treasury."

KENTUCKY

Comments on Society Meeting

Excerpts from the minutes of the 1943 Annual meeting indicate that the Board of Direction of the Society held four meetings during the past year, that the Society is in good condition and that despite the emergencies of war the prospects for the coming year are bright

An appeal for cooperation from all interested persons and agencies in an effort to strengthen and enforce the Registration Act was called for by the Legislative Committee and the Secretary of the Society who is also the Secretary of the Board of Registration. The Board needs the help of the Society in policing the state in the matter of violations as well as educating the public to a better understanding of the Act and its purposes.

Accepting as a basis the Ohio Schedule, the Society has prepared a Kentucky schedule which is ready for distribution. If you do not receive one, address the Secretary.

A luncheon meeting sponsored jointly by the Society and the Kentucky Section of the A.S.C.E. was addressed by Major James C. Courtney of the United States Army who discussed "New Army Officer Procurement Service".

Engineers in War Effort

President McGruder of the Kentucky Society of Professional Engineers, in pleading for cooperation among engineers, recently stated that "They should see that all engineers who are interested in an active part in the war effort get into the armed forces where they are best fitted to serve. If a man is of Lt. Col. calibre see that he gets such a commission or if of Second Lieutenant calibre, that he gets that. This is an engineer's war and engineers should be in the proper places—we should give them a chance to be at the the top where they belong. They are needed in all branches of the service."

The important consideration is that in an "Engineer's War", the services of engineers should not be wasted. There is a place for every engineer and an engineer for every place if government will but call on the profession for assistance.

MISSOURI

Society Officers

For the information of interested persons, the 1943 Officers of the Missouri Society of Professional Engineers are:

C. P. Owens, Springfield, *President*

O. J. Lamb, Macon, 1*st Vice-Pres.*

Bruce Williams, Joplin, 2*nd Vice-Pres.*

C. G. Roush, Kansas City, 3*rd Vice-Pres.*

H. J. Bruegging, Box 365, Jefferson City, Mo. *Sec'y-Treas.*

A. H. Baum, St. Louis, *National Director*

Chapter Activities

News of the winter activities of Northwest, West Missouri and Ozarks Chapters indicates that despite the exactions of war and the difficulties of travel professional engineers throughout the state are manifesting an increasing interest in the welfare of the profession and in the social and economic problems of the individual engineer. The recent address to the Western Missouri Chapter by State Society President Owens is indicative of the aroused interest and increased perspective of the Missouri engineer.

SOME THOUGHTS POSED
By
Pres. C. P. Owens
With Comments by W. H. McDill
Editor of the Missouri Engineer

I. *Where would this country be today if there were no engineers?* (a) Engineers are doing a great job—In fact they are doing the seemingly impossible. (b) No other craft or profession so willing to work long hours under trying conditions. (c) Comparative pay is very low although there are employing engineers who think the pay outrageous.

Mr. McDill: Mr. Owens points out here that the engineers as a professional group have pitched into the war effort as they pitch into any new problem—there is a job to do and they are doing it. Yet, as a group, they have not demanded or received any special recognition either in notice or pay. There are still some who think that engineers are overpaid while many examples can be pointed out of machine operators and even laborers drawing more pay than the inspectors and even the supervisory engineers.

II. *We Engineers are a strange breed.* (a) We like to disagree. (b) We like to make our brothers miserable. (c) We are our own and first enemies. (d) We do a good technical job but we fail at business, management of our own affairs and salesmanship.

Mr. McDill: These statements are argumentive and need clarifying but we do know that engineers are quick to disagree over methods and also are quick to point out failings of others. Our ethical standards are low and until they are improved we cannot expect to grow in public esteem.

III. *We play an important part in the war program but not as important as we are capable.* (a) Are there any engineers in the Cabinet? Lawyers? (b) Are there any engineers in high defense posts? (c) Many lawyers are attempting to do work for which engineers are trained. Why? (d) Is there something wrong? Something we lack? (e) Suppose we endeavor

to find out what we lack and why? Then we can devise methods to correct the deficiency?

Mr. McDill: This section is a challenge which should bring up some strong rebuttal. Suppose, though, we consider this fact that engineers are generally poor politicians and as such do not understand psychology and mass control. They are good planners with things but do not know what to do with people. They are not schemers in the sense that they can "engineer" situations that will tend to their benefit. Great planning programs and engineering works are seldom promoted by engineers. It might be said that engineers do not understand the principle of instituting great movements. They are Johnny-on-the-spot when it comes to actually working out details but the broad idea and its promotions are not in their line.

IV. *What are our aims?* (a) What do we mean by Ethics? A vague term to most engineers. (b) Do we help another engineer locate a job, or merely wish him luck? (c) One aim has been accomplished—we have an engineer's registration law.

1. What will the law do for us? Nothing, it is merely a tool.
2. No one knows about the law except engineers.
3. No one cares about the law except engineers.
4. Many engineers are not interested.
5. It is our responsibility to see that registration becomes effective and gradually assumes a definite meaning.

Mr. McDill: Can you define ethics? Can you write a code of ethics? What does the term mean to you. Isn't it a part of our professional duty to help our engineers—doesn't it accrue to our credit to see that a properly qualified engineer is placed on every job requiring engineering skill?

The engineers registration law was primarily intended for the protection of the public. We would be derelict in our responsibility if we did not make that law useful by improving our own membership both technically and ethically; to maintain our status as qualified professionals, experts, on whom the public can call for advice and guidance with assurance.

V. *The opportunities of the Missouri Society.* (a) It is the only organization representing all engineers. (b) Other organizations are technical or merely social. (c) It provides common ground.

1. For debate and self development.
2. A place to crystalize common opinion.
3. A place to find and solve our own problems.
4. A means of speaking as a group.
5. A means of profit through contacts.

Mr. McDill: There is some fear that the technical societies would lose their identity if they became too closely associated with the professional societies. This should not be the case. We should make sure that the technical societies become stronger and more useful by urging every member of this society to support the technical group in which he belongs. It is only through this means that we can hope to progress technically. The professional society has its main purpose in coordinating technical effort into a common force for the good of mankind.

VI. *Our possible objectives.* (a) Maintain and increase membership. (b) To study and really know our problems and work together for their solution. (c) To guard and protect our present engineering laws and improve them when necessary. (d) To improve the engineering profession and engineers as individuals. (Many registered who lack certain training and experience—these should be urged to study for advancement.) (e) To urge engineers to broaden their interests, especially civic and business interests. (f) To secure proper publicity for the professions. (g) To encourage worthy engineering projects to be "engineered" by engineers. (h) To promote proper compensation for engineers and to fight unionism for engineers. This last is vital for unless relief is given many engineers will go into unions and we will lose as a profession.

VII. *Some specific things we can do now under adverse conditions.* (a) Contribute to the MISSOURI ENGINEER.

1. The ENGINEER can pinch hit for chapter meetings.
2. Write aritcles, express private opinions, discuss matters of general interest.
3. Assign editorials to be prepared by chapters.
4. Chapter secretaries to serve as reporters.
5. Committees to report on activities and progress.
6. Contribute to the Where They Are column.
7. Pictures and advertising.

VIII. *National Society of Professional Engineers.* (a) We need a representative in Washington. (b) We should all belong to N.S.P.E.

IX. *The Post War Period.* (a) What is in store? (b) Is the outlook pessimistic? (c) We will be called upon to rebuild the world. (d) We must improve our profession—pull together and prepare for the worst.

Mr. McDill: The foregoing outline covers the whole field of activity of the Society. It poses questions that should evoke a wide variety of answers.

NEW YORK

Society Annual Meeting
May 7th-8th New York, N. Y.

The Committee in charge of the Annual meeting has forwarded the following announcement:

"The Convention Committee has spared no effort to provide a fine program for the Annual State Meeting on May 7th and 8th at the Hotel New Yorker. In addition to the election of officers and other business to come before the convention, features of special interest are the Friday Evening Smoker and the Saturday Luncheon. The Smoker will include entertainment and refreshments for the members and guests. For the Luncheon, the Committee is negotiating with several prominent speakers representing Brazilian and Mexican interests, who will present addresses on Inter-American Relations from an engineering standpoint, a timely topic of mutual interest to all American engineers. This meeting is a real opportunity for the Engineers of New York State to demonstrate their wartime solidarity.

Of additional interest is the program arranged for the ladies. This will consist mainly of a luncheon, afternoon fashion show and evening theatre party, all on Friday, as well as participation in the Saturday Luncheon with an opportunity to hear the speakers.

A special feature at this year's meeting will be the session on Saturday morning for students and college faculty members, at which there will be explained the provisions of the new "Engineer-In-Training" Regulations with an opportunity for discussion. State Commissioner of Professional Education, Dr. Irwin A. Conroe, will preside."

A special committee, which has met with prospective Engineers-in-Training will present a report on a proposed organization for these young men.

Examinations for P. E.

The 235th meeting of the N. Y. State Board of Examiners of Professional Engineers was held in New York City on April 9. The Board considered and approved the results of the January 1943 examinations.

Of 129 applicants, 74 passed the examinations, 36 were conditioned in one subject (1 in Part I, 20 in Part II, and 15 in Part III), and 19 failed.

The proportion of applicants passing the respective divisions of the last three examinations has been as follows:

	Jan. 1942	June 1942	Jan. 1943
Part I	91%	89%	86%
Part II	56	60	63
Part III	70	58	69

Commencing in June 1943, Parts I and II will constitute the "Preliminary Examinations" and will be available to recent graduates and others who seek qualification as "Engineers-in-Training".

Erie Chapter

The April meeting of the Erie Chapter was held on the 14th at Buffalo. The new State Constitution and By-Laws and the new "Engineer-In-Training" program were discussed and a Nominating Committee for the election of officers at the meeting to be held on May 26th selected. The Chapter likewise decided to issue a monthly bulletin to keep members informed on matters

of importance to the profession. The speaker of the evening, Mr. Edwin E. Woodman, delivered an interesting dissertation on the use of plastics in war industries and predicted an extension of their application in the post-war era.

Thank you Secretary Landers! Ed.

Queens Chapter

An interesting example of how the Chapter may serve the county or local area is indicated in a recent release dealing with the subject of paying for street improvements such as sewers, regulating, grading and paving.

The question of local assessments, their history, their application, and their general value is thoroughly discussed in the report of a committee recently appointed by the chapter at the request of the presiding officer of Queens, The Hon. James J. Burke, Borough President.

Lack of space prevents further discussion of the subject at this time.

OHIO

Board of Directors to Meet First Friday Each Month as Courtesy to The American Engineer

As galley proofs of the May issue of the American Engineer are being returned, the April Bulletin of the Ohio Society comes to hand. Lack of space prevents more than an acknowledgement of the generous action of the Board of Trustees in moving forward, to the first Friday, its monthly meeting in order to meet the American Engineer News deadline of the 15th of the month. This action, which follows the cooperative pattern that the Ohio Society has manifested during the past year, is greatly appreciated and will make possible publication of Ohio's activities in the succeeding issue of the said American Engineer.

Bulletin Items

Reports by the Secretary and the National Director indicating an active interest in State and National affairs are contained in the Bulletin.

The Membership Trophy was awarded to the Akron Chapter which gathered 100 points as against 64 for Portsmouth, 49 for Marion and 48 for Cincinnati, its nearest competitors.

At this writing, there is no further word on the final disposition of Senate Bill #37 which passed the Senate 30-0 and has been reported out of the House Committee with a recommendation for passage.

The publicity contest is in the making and each chapter will be requested to keep a scrap book of its own publicity items.

Reports from Mahoning Valley, Dayton, Canton Regional, Hocking Valley, Cleveland, Franklin, Akron and Marion Chapters contain interesting news items indicating that the war has not lessened the activities of the county organizations. The communication from Secretary-Treasurer Taylor of Marion County is likewise acknowledged.

President's April Letter

The April News Letter of President Graf advises each member of the Ohio Society to make known to his representative in the State Legislature his views on Senate Bill No. 37. The latter likewise urges support for Senate Bill No. 103 which provides for an increase in the salary of county engineers.

The membership campaign is still in progress and the slogan "Beat New York" suggested by Vice-President Fox carries the approval of President Graf.

PENNSYLVANIA

The Society—Its Foundation

Under the above caption, The Pittsburgh Engineer discusses editorially the Pennsylvania Society of Professional Engineers. To quote:

"Taking things for granted is an affliction from which people do not struggle too hard to free themselves. Perhaps, the curiosity with which we were born, and which manifests itself in taking the family alarm clock apart at an early age, is scared out of us by the resulting punishment and the finality with which the main spring unwound itself. Having burned out fingers, it seems more prudent to leave things as they are until they get so bad that something has to be done.

"However, it is not necessary to take a thing apart to see how it runs. It is well to keep a watchful eye on any mechanism or organization to prevent breakdowns, and to see if the method of operation can be improved. We are acquainted with an architect (of all people) who with a flashlight and an infinite amount of patience lay for three hours underneath his repeating phonograph, and put it through its paces, so that now he understands the operation of each little lever and gear wheel, and can keep it running in first class condition. Our Society is no exception. Here is a healthy organization running at a satisfactory clip. It, however, does not seem amiss to review its construction and history, both for the purpose of seeing if improvements can be made, and also for pointing out to the uninitiated what manner of Society it is. It is proposed to present a group of discussions on various phases of the Society with the hope that they may prove interesting, both to the present membership and those that are qualified for membership but do not belong.

"The foundation of this Society is the Registration Law, Act 415, of May 6, 1926. It is not the purpose of this article to discuss this act. It has strength and has weakness. The weaknesses are well known, and relate mainly to the actual registration of men as engineers. Its strength is probably not so well known. It is strong in that the courts recognize that a man with a registration card is a qualified expert, and his standing before the bar is not open to question or criticism. It, therefore, becomes a protection for the man that is registered. It gives him a respectable reception. The mere fact that adverse interests are attempting to attain the repeal of this law indicates that it has strength.

"While it is not considered necessary to sell the idea of registering, it seems desirable to point out the necessity thereof. Registration is not necessarily all good. It implies regulation, which in itself is harmful. An analogy, however, may prove useful in explaining the necessity for regulation. It is entirely feasible for *one* qualified operator to drive his automobile in any manner he pleases along any street or road, provided his is the only car on the road. It is not at all feasible, however, for any number of people to do this simultaneouly, because then the safety and welfare of them and a number of other people will be seriously jeopardized or impaired. Therefore, the driving of automobiles must be regulated. For a similar reason, it is necessary to regulate the design and construction of facilities, etc., as defined under the heading of 'Engineering' by Dr. Steinman. It is not to be inferred that registration makes a man any better engineer. It does, however, mean that he has qualified before a tribunal set up by the public for the express purpose, and it is for this reason that the courts recognize him as an expert witness.

"The driver's license which you carry in your pocket does not make you a better automobile driver, and the registration card does not make you a better engineer. The only reason for the existence of either is that the safety and health of the public must be regulated, and the registration of engineers is the best way to accomplish this result.

"The weaknesses are numerous. They can be much better discussed by Engr. Canfi. They should be corrected. The present law has too many loopholes to be considered equitable and just, but it must not be taken for granted that this correction and improvement will be done automatically. It will require pressure, and pressure by as many interested engineers as possible, to achieve the desired results. Every registered engineer will benefit by improving and strengthening the law, but his individual effort is negligible compared to the results obtained by a society or organization advocating such improvement. The only society interested in this improvement is the Pennsylvania Society of Professional Engineers. Every registered engineer should belong to it."

PITTSBURGH CHAPTER

Meets 3rd Thursday Each Month
Directors Meet 2nd Thursday Each Month

Following is a list of the Officers and Directors and Committee Chairman of the Chapter for the current year:

Earl S. Fenelon, *President*
Benjamin H. Aires, *Secretary*
Martin C. Knabe, *Vice-President*
Raymond I. Lachman, *Treasurer*
John R. Shoffner, *State Director*
Term expires 1943
T. J. Mitchell
Rudolph Janata
John M. Rice (Past Pres.)
Charles A. Finley (Past Pres.)
Term expires 1944
H. S. Ayres
Karl W. Atwater
Term expires 1945
George T. Bruun
Charles F. Houlihan

COMMITTEE CHAIRMEN—1943

Earl S. Fenelon, *Administrative*
Roswell Canfield, *Publications*
George M. Levinson, *Entertainment*
John M. Rice, *Nominating*
Charles A. Finley, *Legislative*
Phil A. Franklin, *Membership*
Frank H. Hecht, *Public Relations*
Nathan B. Jacobs, *Ethics and Practice*
Philip W. Price, *Meeting*
Edward A. Croak, *Audit*

Pittsburgh Disapproves H. B. No. 622

Protesting the favorable action by the State Society Executive Board, the Pittsburgh Chapter has recorded its disapproval of House Bill No. 622 and urges other Chapters to join in requesting the Society to reconsider its approval.

HARRISBURG CHAPTER

Appoints Registration Committee consisting of:

Kenneth H. Caskey, Chairman
H. Root Palmer, Assistant Chairman
Robert W. Lowry
Edgar T. Clapp

To Visit Philadelphia Chapter

President Snyder has urged members of the Chapter to respond to the invitation to attend the May 6th meeting of the Philadelphia Chapter. Also invited to attend this meeting are the Reading and Lehigh Chapters of the Pennsylvania Society as well as the South Jersey Chapter of the New Jersey Society and the Delaware Society of Professional Engineers. This should be an interesting occasion. Harrisburg is considering a policy of reciprocity.

NORTHEAST CHAPTER

News Bulletin

The new Northeast News bulletin of the Northeast Chapter which comprises the Lackawanna, Luzerne, Bradford, Columbia, Pike, Sullivan, Susquehanna, Wayne and Wyoming Counties area continues to be an attractive little publication. E. H. Edwards is the Editor.

Chapter Approves H. B. No. 622

House Bill No. 622, Session of 1942, introduced March 8, 1943, has received the approval of the Executive Board of the State Society with a request that each Professional Engineer write his Representatives and Senators advocating their active support for its enactment.

WEST VIRGINA

Society Protests Labor Proposal

In transmitting a resolution adopted by the West Virginia Society of Professional Engineers, Ross B. Johnson, Secretary of the Society, addressed the Committee on Military Affairs of the House of Representatives urging the passage of H.R. 2239 which contemplates the exclusion of professional men from the inclusive provisions of labor acts and agreements. In his message of conveyance, the Secretary advised that the proposal, to include engineers within the scope of a suggested contract between Mine Operators and the United Mine Workers of America, was contrary to the expressed wish of the Professional Engineers of West Virginia. Pointing out that so many engineers of that state were engaged in operations incident to the mining of coal, Secretary Johnson outlined the considerations which led the Society to adopt the following resolution:

WHEREAS, The United Mine Workers of America have presented to the Bituminous Coal Industry demands for a new wage contract to become effective April 1, 1943, and these demands include a provision that all persons inside or outside of the mine, except the Superintendent shall be termed mine workers and

WHEREAS, this apparently contemplates the inclusion of engineers and surveyors "inside or outside of the mine" as "mine workers", thereby forcing many members of the engineering profession, as a condition of continued employment, to join the United Mine Workers of America, and

WHEREAS, engineers and surveyors are members of a learned profesion, and their functions in any industry are technical, regulated by professional standards, and advisory to the management, and in the exercise of such functions cannot properly be regulated, or represented,

THEREFORE, BE IT RESOLVED: That the Board of Directors of West Virginia Society of Professional Engineers strongly protests against any act on the part of the Mine Operators or the United Mine Workers of America that would require members of the engineering profession to join, or to be represented by, any organization.

BE IT FURTHER RESOLVED, that the Hon M. M. Neely, Governor of West Virginia, the West Virginia delegation in Congress, the national engineering societies, and all others who have an interest in maintaining the freedom of men, be urged to use every possible influence upon the Mine Operators and the United Mine Workers of America to eliminate from any contract affecting the Bituminous Coal Industry any requirement that engineers or any others who are members of a scientific profession be forced to join any union.

"The West Virginia Society of Professional Engineers believes that all of the provisions of H.R. 2239, the measure under consideration by this Committee, will effectuate the purposes for which they are designed, and we unhesitatingly endorse them. But more especially do we ask this Committee to retain that provision pertaining to executive, administrative, professional or supervisory employees—applicable to all industries—as not only a distinct benefit to the engineering profession in industry, but a protection to the working forces whose immediate endeavors in the every day production of the Nation must necessarily be under the supervision of those with whom they are in closest contact and who understand their problems sympathetically, while at the same time having a knowledge of the requirements of the industries they all serve. The paramount interests of the country will be best conserved by the passage of this measure."

Increased Dues Produce Increased Membership

Another evidence of the relation of dues to membership is to be found in West Virginia where, despite larger dues and the casualties occasioned by the demands of the war effort, the paid membership of the State Society has expanded during the past two years.

Society Watches Legislation

The value of the State Professional Engineering Society is today being felt in the legislative halls of every state where such an organization exists. In keeping with her sister societies in Ohio, New York, Pennsylvania, Indiana and elsewhere throughout the country, the West Virginia Society of Professional Engineers is expressing its views on pending state legislation. For details consult the monthly issues of The West Virginia Engineer, official publication of the Society.

Engineers and Building Industry

(*Cont. from P. 9*)

some cases the information was available to a few but in other cases the obtaining of it was almost a study for research. Was there any way in which quality control of materials could be fitted in with quality control of buildings? Yet another point for discussion was fixing clear lines of responsibility for all concerned with building jobs of any size. As regards standardisation, there was a great need for a specification to cover quality of performance as well as dimension, and as regards standards of craftsmanship, engineers could assist in formulating these on a scientific basis. On the question of training in management, the Institution should press this point forward.

There was the great problem of a planned programme for civil engineering works, and he was wondering what was really being done about this. Sir Ernest Simon had spoken of the plans for spending 700 million dollars in New York and 20 million dollars in preparatory work. In New York they were getting ready for immediate work after the war, but who in this country knew of any plans that were ready now to be put into force immediately after the war? Engineers had the right to ask what was being done. Certain information had been placed before the Government before the war, but who was sitting on it now? Was anything being done? One was almost afraid to ask a question like that now because whatever Government Department was asked, one never got the true answer, which was that there was no policy. But there was not too much time. It took two or three years to survey and plan for engineering work and to get contracts let. These were all matters which the Institution should further investigate and study.

On the major question of better organisation of work and relative responsibility for work, there was great necessity for closer working between professional engineers and architects. That had been said hundreds of times, but was it not time that the two got together to find out what their respective spheres of work were? It was perfectly silly that they should be fuming because architects had done this and engineers had done that, and the opportunity now existed for something constructive to be done. He therefore suggested that the President of the Institution should ask the President of the R.I.B.A. to get together three or four men of goodwill and meet three or four engineers of goodwill—if they could be found!—and talk the matter over and see whether they could arrive at some concordat for future work. That would have an enormous influence on the work of engineers and architects.

Touching on education and training, Sir Clement Hindley said that foremen, clerks of works, inspectors, and the like were the non-commissioned officers of industry, and, indeed, were the backbone of industry, whilst the highly skilled craftsman and operative were the spearhead of any progress. Building science, as a branch of engineering, was included in the Institution's syllabus for examination for associate membership, which, however, did not depend upon examination alone, but on examination and practical experience. That was a standard which was wanted for other branches of the building industry. Nobody wanted to see men coming into the industry on the strength of a school examination. The days of recruitment to the Institution from a privileged class were long past, and it was possible for the skilled operative and the foreman, and particularly the product of the new technical schools, to aspire to membership."

Professional Ethics

(*Cont. from P. 13*)

the mud, but, the chances are equally as great that the effort will whirl us to the stars.

"To those of our alumni who have temporarily abandoned their careers to take up arms against the ghouls who would make of Religion a mockery, of Mores a slavery, and of Culture a travesty, may you get some comfort from the thought that you are contributing to a Way of Life. A Way that must include humanity, all humanity; a Way of Life that must encompass dignity, the dignity of the soul within the body; and, it must assure the world that never again, anywhere will the little fellows get the worst of it.

"Gentlemen of the Alumni: I would not have you think for a moment that, in such a devastating fashion, I imagine I have drawn a picture of things as they exist among your members. An examination of your lives and your achievements proves only too well that the contrary is true. There are no blots on your escutcheons. Your presence here makes us confident of that. These remarks are in no way intended as an attack. Their purpose is, rather, to provoke a few thoughts, thoughts centering around the idea that it can happen here. All that I have suggested can happen here, can happen anywhere as long as humanity continues to be the unpredictable entity It has shown itself up to now."

The Ohio Society of P. E.

(*Cont. from P.18*)

William F. Eirick (R), 12903 Clifton Blvd., Lakewood, O., Clay Products." *Robert N. Waid, Chairman*

"GOOD NEWS"

"Engineer Robert N. Waid, Chairman, Legislative Committee, Ohio Society of Professional Engineers, telegraphed us on March 9, 1943, that our Bill (S.B. No. 37) was passed on by the Senate with a 30-0 vote.

"We still have several more hurdles to surmount:

1. We must get our Bill assigned to a House Committee.
2. We must get the House Committee to act.
3. We must get the Bill on the House calendar before adjournment.
4. We must muster sufficient strength to secure its passage.

"The splendid vote in the Senate is not necessarily an indication of the vote in the House. That is why we are asking all professional engineers in Cuyahoga County to urge the Cuyahoga County members of the House to vote favorably on S.B. No. 37.

"All House members are being contacted by the respective Chapters of O.S.P.E. Let us not fail in Cuyahoga County. Write, telephone, or telegraph your Reperesentative TODAY!"

Aside from the role of the Cleveland Engineer other methods of informing and advising members include:

A Special Notice bearing date of March 10th and reading:

"Good news! Word has been received today that S.B. No. 37 passed 30-0. It will now go to the House.

"The House is much larger and will require more work on our part. Later you will be asked to write, telephone, or telegraph each Representative from Cuyahoga County."

Special Committee
Cleveland Society of Professional Engineers

An appeal dated March 25th:

"**CLEVELAND SOCIETY** of **PROFESSIONAL ENGINEERS**
Cleveland, Ohio March 25, 1943

Dear Engineer:

"Here is an opportunity for all Professional Engineers to come to the aid of their profession.

"Legislation has been introduced by the Ohio Society of Professional Engineers to strengthen our Registration Act, Section 1083-11, 13 14, 18, and 21 of the General Code. The legislation is known as Senate Bill No. 37.

"Senate Bill No. 37 passed the Senate by 30-0 vote on March 9, 1943. The Bill is now in the House.

"Here is our part! Please write a letter, telephone, or telegraph each member of the House from Cuyahoga County and urge him or her ot vote favorably for Senate Bill No. 37. TO BE EFFECTIVE YOUR LETTER MUST BE MAILED IMMEDIATELY. Use your letterhead if possible.

"The vote in the House may not be as favorable as in the Senate. That is why all of us should help. Let us demonstrate that we are a united profession."

Very truly yours,

Montford Blake	Fred R. Williams
Harvey R. Hawgood	R. G. Youngmeyer
John O. McWilliams	William C. Kammerer, Chairman

Special Committee

Press notices and committee announcements.

As the May Issue of the American Engineer goes to press, no new developments have been received but it is safe to assume that Ohio Society and its Cuyahoga Chapter, together with the other state units, are functioning as only the professional society form of organization can function.

International Aspects of Patents

(*Continued from Page* 11)

Ultimately, a single International Patent Office might be created, where any individual could apply for a patent which would be recognized as his property throughout the world. This expansion of the forces of free enterprise may eventually promote a world technical revolution sufficient to usher in a new era of prosperity.

This world wide perspective makes apparent the necessity for control of the application of scientific and engineering discovery. Use, not abuse, is the moral justification for recording and protecting patents. Scientists and engineers have a major stake in the field of patents; they have a corresponding responsibility.

Now is the time to anticipate this and start a relatively simple program, to which none can object, intended to put humanity permanently on the pathway of law and order.

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Natural Resources (*Cont. from P.* 7)

have even known." The Watts and the Edisons of tomorrow will not be afraid. They will have the freshness of youth together with its determination to produce a better civilization, a mode of living that will surpass anything that has ever gone before. The energy of the early settlers who battled year in and year out has for the moment become dormant, because we have been told to look upon each new development as the super of supers. The baptism of fire which this war is subjecting us to will rekindle the spirit of life, the spirit of development, the spirit of adventure and the spirit of daring; but greatest of all, it will give a new birth to thinking. The highways of Alaska may offer new adventures to those who wish to follow. The highways through South America, China, Australia, may beckon to many, but the highways of America are still calling and are still offering a return which will repay their followers many fold, offering the satisfactions of a life which has been devoted to useful thinking. America should never be sold short. Teach our youth to think. Teach them to produce the impossible. Teach them Godliness. Teach them that their true purpose in life is to give and not take. Teach them that their happiness is to be found in producing happiness for others.

Engineers of today have the opportunity to serve well their country, to save it from the enemy beyond our shores. Engineers of tomorrow will have the responsibility for saving America from enemies within. The inability of our statesmen to think well after the close of the last war sent our Government close to the brink of revolution. If we as engineers can produce all of the facilities necessary to carry on the most destructive struggle in all history, we can certainly produce the facilities with which to produce plenty and to live in peace. As engineers, it is our sacred duty to devote our thoughts and our talents to the making of the future. The problems of finance, economics, rehabilitation and inflation will require sound engineering, thinking and planning. We should take an active part in shaping their policies. Our education and experience have, in the light of modern civilization, been broader than that of other professions. We have learned to think with our hands and with our heads. We have learned horse sense through painful experience. Our knowledge cannot be duplicated in the class room or in any laboratory, but it can be given to others if we will but take our rightful place in the watch towers of our Government.

WHAT'S NEW

And Coming In The Whirl of Change

(News from the industry — gathered by the publisher)

BROR DAHLBERG, President of the Celotex Corporation, and Chairman of the Certanteed Corporation, announces that unemployment and the lack of decent housing, two of the most pressing problems expected after the war, can easily be solved if the building industry will bring itself up to date and erect "machine constructed houses".

He emphasizes the acuteness of the problem by saying that in addition to those seeking employment when hostilities cease there will be millions of soldiers and war workers.

He estimates there will be an ordidinary need for 1,000,000 urban and 500,000 suburban and farm dwellings yearly for ten years.

He feels the best way of meeting this demand is by putting the construction industry on a "machine basis" and discarding the methods that have been in use for many years.

He is of the opinion that ample proof of the feasibility of erecting "machine-made" houses, has been provided by the experience in war centers. Admitting that some of the houses are pretty poor, he states "but, so was the first automobile when compared with the present day vehicle".

Improvements are being made constantly, he says, and when the war is over, the building industry will be in the position of having experience, the proper machines, an ample supply of labor, and many synthetics which can be used to cut the cost of construction.

It will be possible, under these conditions, he asserts, to erect a four and one half room house, modern in every respect, for $2500, including the plot, in many sections of the country.

Right now, architects and designers, he says, are developing hundreds of new designs for private homes, using exactly the same materials that are going into regimented housing projects, but turning out as many different plans as there are designers.

He stresses the fact that a "machine made house" need not be a standardized house. It is nothing more nor less than a house in which the essential elements are mass-produced and arranged to suit individual taste".

IGOR A. SIKORSKY, a member of this Society, and outstanding designer and enthusiast of the helicopter, is about to be rewarded in a practical

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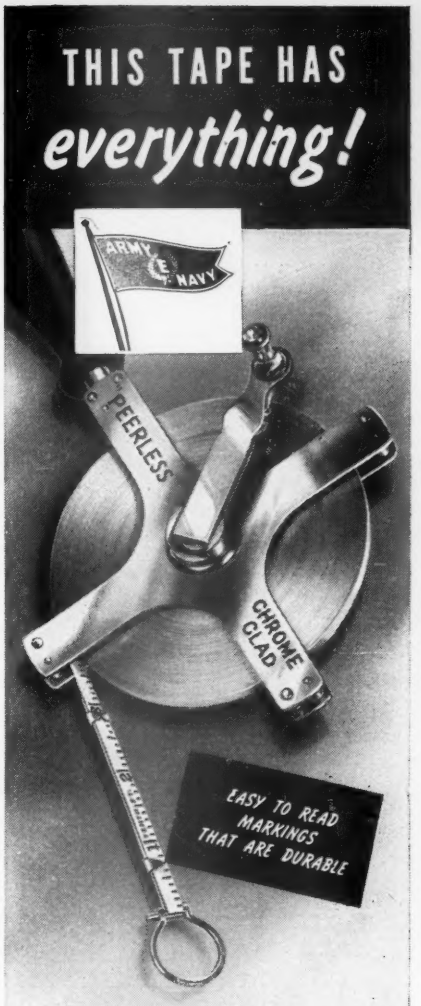

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way by the adoption of his newly perfected helicopters for an air service that is planned to blanket New England, from Manhattan to Kent, Me.

The service contemplates operation of local air mail and express from the rooftops of postoffices and railroad stations in 400 cities and hamlets.

Because the helicopter can fly straight up, straight down, backward, forward, horizontally, remain stationary in the air, and be brought down to an immediate stop, any roof surface no larger than 9 x 12 feet could serve as an adequate air station, it is said.

Connections could be made with New England towns by direct helicopter service with main-line terminals served by domestic and transoceanic airlines.

It is expected that later, as engineering develops, that air passengers may be carried on local helicopter-taxi hops from downtown districts to outlying airports and suburban areas.

A. G. BRYANT, Chicago Manufacturer, member of the WPB advisory committee, and a director of the National Machine Tools Builders' Association, is reported as saying that sales are declining "at an accelerating pace, and backlogs of orders are falling precipitously, and have been for months."

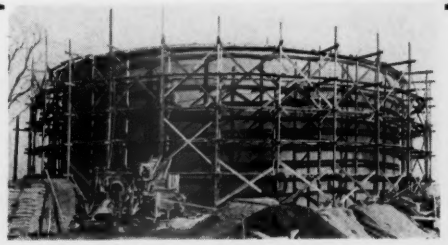
"After the last war", Mr. Bryant said, "1921 machine tool production declined 90% from 1918."

Commenting on the industry's outlook after the current war, he said: "It is obvious that by equipping the country for war in the years since 1940, the machine tool industry has practically put itself out of business for at least a decade."

UNITED STATES RUBBER COMPANY, and Firestone Tire & Rubber Co., have just ended one of the hottest races in the industrial history of the United States. Both began to turn out rubber. Who won the race nobody actually knows. Firestone claims that its Baton Rouge, La., plant had produced the synthetic rubber "loaves" about a day ahead of its nearest rival.

UNITED STATES RUBBER COMPANY claimed the pennant for its plant at Institute, W. Va., largest single unit in the world, with a capacity of 90,000 tons, using alcohol butadiene.

Bradley Dewey, Government rubber deputy is quoted as saying that both companies have done a "superb job" and calls the race a dead heat.



Construction of a 1,500,000 capacity prestressed gunite tank.

This photograph shows a tank under construction which has been built entirely of GUNITE.

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Inventions created of necessity for defeat of the enemy will produce in factories such as ours, new improvements that will make products finer and life easier when normal times return.